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FINAL PROGRAM

2010 Academy of Psychosomatic Medicine

Poster and Oral Presentation Abstracts

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Dlin/Fischer Award

For Significant Achievement In Clinical Research

Poster Presentations

Thursday, November 11, 2010

1. (T) Valerian: Not Your Garden-Variety Withdrawal!

Presenting Author: Olumuyiwa Abdul, MD

Co-Authors: Marianne Jhee, MD, Leopoldo Pozuelo, MD, FAPM

Background: We report a psychiatry consult on a 26 year-old man, with history of Bipolar Disorder and Generalized anxiety who was admitted to the medical floor with disorganized thought, tachycardia, vomiting, and poor gait. His usual home medications were olanzapine for mood disorder, alprazolam for anxiety, and oxycodone/acetaminophen for headaches. In the months prior to admission he self-medicated with Valeriana officinalis (Valerian) and Scutellaria lateriflora (Skullcap) for insomnia. In the weeks prior to admission he doubled the doses of herbal supplements. 2 days prior to admission he developed severe nausea, vomiting, total insomnia, and severe emotional distress, for which he was brought to the ER

Hospital Course: In the ER he had psychomotor agitation, marked coarse tremors, hyperreflexia, tongue fasciculations, dilated pupils and tachycardia. Collateral information confirmed no history of alcohol use. Labs showed elevated ALT, AST, and WBC. Urine toxicology was positive for benzodiazepine and opiates. Mental status exam revealed a grossly disheveled man with labile mood, conceptual disorganization, and mild paranoia.

On admission to the telemetry floor, he was started on lorazepam 1.5mg IV q6H and gabapentin 300mg q6H for additional benzodiazepine withdrawal coverage and mood stability. Olanzapine 10mg qHS was continued. By Day 2, he had slight improvement of tremor but remained conceptually disorganized. On Day 3 he became more confused, disoriented, paranoid, and had visual hallucinations. We suspected Valerian withdrawal, in addition to benzodiazepine withdrawal, and increased gabapentin to 800mg q6H, lorazepam to 2mg IV q4H, and olanzapine to 20mg daily. On Day 5, tremors were improved but he still had tongue fasciculations, tachycardia and mild hypertension. On Day 6, the patient finally slept, and by Day 8 his mental status cleared with resolution of tremors and hemodynamics. Lorazepam was tapered off and the patient was discharged on Day 9 with gabapentin 800mg q6H and olanzapine 15mg qhs

Discussion: We suspected that the patient's presentation was due to abrupt cessation (from nausea and vomiting) of high dose Valeriana officinalis and Scutellaria lateriflora, superimposed on chronic alprazolam use. Valerian and skullcap are theorized to work on the GABA-A receptor. Valerian has been used to treat benzodiazepine withdrawal, supporting this mechanism of action. In another case report, abrupt cessation of chronic valerian use was implicated in delirium and benzodiazepine-like withdrawal symptoms. Our patient's prolonged withdrawal period suggests that concurrent valerian/skullcap and benzodiazepine withdrawal mandated more aggressive treatment.

Conclusion: Our case illustrates the importance of recognizing the potential intoxication and withdrawal effects of herbal supplements. The CL psychiatrist should complete herbal screening while taking patient histories. There is a growing trend of complementary-alternative medicine use, particularly in depressed and anxious patients. Physicians should be aware of the medications that can lead to withdrawal.

2. (T) The Impact of Gender, Race, and Substance Intoxication on Serum Thyrotropin (TSH) Levels during Acute Psychiatric Hospitalization (Preliminary Results)

Presenting Author: Osama Abulseoud, MD

Co-Authors: Trevor Wells, MD, Nicholas Freudenberg, MD, Elana Miller, MD, Cheryl Vigen, PhD

Background: The literature documenting high prevalence of thyroid dysregulations during acute psychiatric hospitalization is rich. Figures ranging from 7% to 24% have been reported (1-9). In most cases, the changes in measured thyroid functions are transient (2,5,7,10,11). Few studies have looked at the impact of gender, race or acute substance intoxication on TSH levels during acute psychiatric hospitalization.

Objective: The present study attempts to study the effect of gender, race, and acute substance intoxication on TSH in patients admitted to a large urban Psychiatric Emergency Room (PER).

Method: Charts of all patients admitted to PER (2002-2007) at Los Angeles County Hospital were reviewed (n=18,836). TSH and urine toxicology screening are performed on every patient admitted as part of routine clinical care. Subjects without TSH values (n=9,571), and those with more than one PER admission (n=1,565) were excluded. From the remaining 8,743, we report the findings of the first 3000 charts. Those younger than 18 or older than 65 (n=301) were excluded yielding a final sample of 2,699 (M/F=1743/956) 34% of whom were Caucasians, 26% African Americans, 25% Latinos, and 16% were of other races

Geometric means and SD were calculated based on log-transformed TSH. Unadjusted p-values for gender, METH, cocaine, cocaine or METH, and other substance positive were calculated using independent sample t-tests of ln(TSH). The p-value for race was calculated using ANOVA of ln(TSH) with Bonferroni multiple comparison adjustment. The p-values were then adjusted for age, gender and African American race using separate general linear regression models.

Results: 1364 subjects had urine tox, 35% Latinos (n=479), 26% African Americans (n=351), and 23% Caucasians (n=310). 39.7% (n=524) tested positive [Cocaine: 20.7% (n=283), METH: 12% (n=163), and other substances including opiates, barbiturates, and benzodiazepines: 14.4%

(n=196)] Cocaine was most prevalent in African Americans: 44.7% (n=157) vs. 15.2% (n=47) for Caucasians and 12.3% (n=59) for Latinos. 15% of both Caucasians (n=46) and 16% of Latinos (n=75) tested positive for METH compared to only 5.7% (n=20) of African Americans.

Subjects with positive urine tox have significantly lower mean TSH value compared to subjects with negative test: TSH (mean ± SD): Any substance positive vs. negative: 0.89 ± 2.39 vs. 1.09 ± 2.28 (P < 0.0002), cocaine positive: 0.86 ± 2.15 vs. 1.05 ± 2.37 (P<0.03), METH positive: 0.91 ± 2.39 vs. 1.03 ± 2.33 (P < 0.04), either cocaine or METH positive: 0.87 ± 2.23 vs. 1.08 ± 2.36 (P<0.0008,) other substances: 0.83 ± 2.85 vs. 1.04 ± 2.24 (P<0.0002)

Discussion: Preliminary analysis of our data shows significantly lower mean TSH in acutely intoxicated patients. The acute stress response caused by substance intoxication or withdrawal could explain, in part, the dysregulation in TSH levels, however a clear understanding for this finding remains to be studied.

3. (T) Treatment of depression in patients with breast cancer: a literature review of the interaction between tamoxifen and SSRIs

Presenting Author: Prachi Agarwala, MD

Co-Author: Michelle Riba, MD

Introduction: Women with breast cancer are at increased risk for developing depression. Approximately 30% will develop depressive symptoms. As depression is a significant risk factor for treatment noncompliance (2), this is an important area of interest for clinicians. Selective serotonin reuptake inhibitors (SSRIs) are the first line medications for depression. Fluoxetine (3) and paroxetine (4) have been shown to be efficacious in treating depression specifically in patients with breast cancer. Fluoxetine was also helpful in increasing completion of adjunctive cancer treatments (3). There are unique challenges associated with SSRI use in patients with breast cancer. In hormone receptor positive cancers, tamoxifen can decrease the rate of death. Cytochrome P450 2D6 metabolizes tamoxifen to endoxifen, a critical active metabolite of the parent drug. SSRIs are known to inhibit CYP2D6 and may affect endoxifen levels, thereby limiting the effectiveness of tamoxifen.

Method: The PubMed database was searched using the following keywords: CYP2D6, tamoxifen, breast cancer; SSRI, tamoxifen.

Results: Fluoxetine and paroxetine are more potent inhibitors of CYP2D6 leading to marked decreases in serum endoxifen levels (5). Paroxetine has also been shown increase the risk of death from breast cancer in patients treated with tamoxifen (6). Citalopram and sertraline are weaker inhibitors of CYP2D6; co-administration led to intermediate levels of serum endoxifen (5). Citalopram does not appear to decrease the protective effect of tamoxifen against the recurrence of breast cancer (7).

Conclusions: SSRIs inhibit CYP2D6 at varying strengths, leading to conspicuous differences in serum endoxifen levels. Potent inhibitors may increase the risk of death while weak inhibitors may not adversely affect remission rates. Clinicians working with patients being treated for breast cancer must be aware of the type of breast cancer, the available treatment options and possible interactions between psychotropic medications and cancer treatments in order to best serve this population.

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2. DiMatteo MR, et al. Depression is a risk factor for noncompliance with medical treatment. Arch Intern Med. 2000;160:2101-2107.
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4. (T) Catatonia in an adolescent patient with anti-N-methyl-D-aspartate receptor encephalitis - a case report

Presenting Author: Prachi Agarwala, MD

Purpose: Catatonia is a well defined syndrome associated with disturbance of motor activity, echophenomena, negativism and peculiar voluntary movements. Anti-N-methyl-D-aspartate receptor (NMDAR) encephalitis is characterized by inflammatory changes and neuronal loss in the hippocampus and amygdala. Common signs and symptoms include memory disturbance, affective changes, psychotic symptoms, disturbed consciousness, seizures, dyskinesias and autonomic instability. Approximately 75% of patients with anti-NMDAR encephalitis experience dramatic improvement with immunotherapy and tumor resection.

Methods: We present the case of a 16 year old girl, with no psychiatric history, who developed encephalitis in the context of anti-NMDAR antibodies. She responded well to a standard course of steroids and IVIG. An ovarian teratoma, which has a known association with anti-NMDAR antibodies, was discovered on pelvic ultrasound and surgically removed. Within days of completing her acute course of treatment, the patient began repeating phrases and movements of other people (echolalia and echopraxia). She also displayed stereotypic spitting behaviors, disturbed

voluntary movements (wriggling fingers, unusual postures, odd mannerisms), gegenhalten (resistance to movement proportional to the force applied by the examiner), waxy flexibility (initial resistance to repositioning) and verbigeration (repetition of phrases). Additional work-up was normal, including a renal panel, complete blood count and EEG, which was negative for seizure activity or slowing. The patient was diagnosed with catatonia based on her abnormal movements (stereotypies, mannerisms, echophenomena), inhibition of movement (gegenhalten), disturbed volition (posturing) and excitement (verbigeration and impulsivity). Her initial Bush Francis Catatonia Rating Scale (BFCRS) score was 29. Scheduled lorazepam was initiated, titrated to 12mg daily. On day 14 of the lorazepam trial, the patient was discharged with a BFCRS score of 1 for mild impulsivity.

Conclusion: This case is unusual because catatonia has not been previously reported after a completed course of treatment for encephalitis. The importance of early recognition and treatment of catatonia is underscored. Clinicians who work with adolescents should be aware that catatonia may be related to a variety of psychiatric and medical conditions. Successful treatment of the medical condition may not result in remission of catatonia. Ongoing research regarding catatonia rating scales, specifically the reliability and validity in the pediatric population, is needed. Use of the BFCRS, an objective measurement tool, facilitated improved observation and effective communication with the parents and the medical team about the diagnosis of catatonia.

References:

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5. Patient's perceived need and psychological distress and/or quality of life in ambulatory Japanese breast cancer patients

Presenting Author: Tatsuo Akechi, MD, PhD

Co-Authors: Toru Okuyama, MD, PhD, Chiharu Endo, Ryuichi Sagawa, MD, Megumi Uchida,MD Tomohiro Nakaguchi, MD, Terukazu Akazawa, Hiroko Yamashita, MD, Tatsuya Toyama, MD, Toshiaki A. Furukawa, MD

Purpose: A needs assessment can be used as a direct index of what patients perceive they need help with. The purposes of this study were to investigate the association between Japanese patients' perceived needs and psychological distress and/or quality of life and to clarify the characteristics of patients with a high degree of unmet needs.

Methods: Randomly selected ambulatory female patients with breast cancer participated in this study. The patients were asked to complete the Short-form Supportive Care Needs Survey questionnaire, which covers five domains of need (health system and information, psychological, physical, care and support, and sexuality needs); the Hospital Anxiety and Depression Scale; and the European Organization for Research and Treatment of Cancer QLQ-C 30.

Results: Complete data were available for 408 patients. The patients' needs were significantly associated with both psychological distress ($r=0.63$, $p<0.001$) and quality of life ($r=-0.52$, $p<0.001$). A multiple regression analysis revealed that employment status (without full-time /part-time job), duration since diagnosis (less than 6 months), advanced stage, and a lower performance status were significantly associated with higher total needs. Only sexuality needs were significantly associated with a younger age, while the other domains were significantly associated with duration since diagnosis, advanced stage, and a lower performance status.

Conclusions: Moderate to strong associations exist between Japanese patients' needs and psychological distress and/or quality of life. The characteristics associated with patients' needs are multi-factorial, and interventions to respond to patients' needs may be one possible strategy for ameliorating psychological distress and enhancing quality of life.

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6. (T) The Developing of a Private Psychosomatic Medicine Clinic in Indonesia

Presenting Author: Andri Andri, MD

Background: Psychosomatic Medicine (PM) is a new subject in medical specialty field in Indonesia. Before 2008, there was no psychosomatic medicine clinic conducted by psychiatrist. Omni International Hospital opened a psychosomatic medicine service for public conducted by a psychiatrist as a chairman in October 2008. Collaboration with other specialties in the hospital was also performed.

Methods: We collected data from medical admission to know about the amount of visiting patients to Psychosomatic Clinic in the hospital. The amount of visiting patients was counted every month to know about the increasing amount of patient in the clinic. The data collected from January 2009 until December 2009.

Results: The visiting patients who came to Psychosomatic Clinic from January 2009 until December 2009 were 484 patients with average of 40.33patients/month. Three hundreds and forty patients (70.24%) came to the clinic by

his/her own will, the rest (29.76%) were came by referral from the referring physician. January 2009 was the minimum amount of the patients (10 patients/month) and August 2009 was the maximum amount of the patients (45patients/month). Most of the diagnosis of the patients were generalized anxiety disorder (280 patients, 57.85%). The other diagnosis were panic disorder (102 patients, 21.07%), somatization disorder (50 patients, 10.3%), major depression disorder (46 patients, 9.5%) and schizophrenia and delusion disorder (10 patients, 2.07%).

Conclusion: There was a relatively increasing amount of patient who visited the psychosomatic clinic from month to month. The most frequent underlying diagnosis for psychosomatic symptoms that the patients complain was generalized anxiety disorder.

7. (T) Additional Transplant Psychiatry Training is needed-Insights from a National Psychiatry Residency and Psychosomatic Fellowship Survey

Presenting Author: Gabriela Balf-Soran, MD

Co-Authors: Paula Zimbrean, MD, Rani Desai, MD

Background: Due to severe organ shortages, transplant candidates must complete a screening process that includes psychiatric assessment. Psychiatric diagnoses have been linked with lower post-transplant outcomes; therefore the role of the psychiatrists in transplant medicine is increasing. Psychiatrists are often asked to participate in recipient or donor selection, and to manage post-transplant psychiatric complications. Since transplant programs are not ubiquitous and training is time-limited, we attempted to determine the perceived adequacy of current training in Transplant Psychiatry (TP).

Methods: An 11-question anonymous web-based survey was distributed to all psychosomatic and psychiatry residency program directors along with a request to fill it out and forward it to their residents and fellows.

Results: 52% (24/46) psychosomatic program directors, 26.4 %(48/182) psychiatry residency program directors, 60 psychiatry residents and 8 psychosomatic fellows returned the completed surveys.

75% of Psychiatry Residency Directors (PRDs) indicated that they have an organ transplant program at their institution, yet in 59.6% of cases the program does not provide specific TP training.

79.1% of the PRDs reported it likely that residents will be asked to perform TP evaluations during their residency. 68.6% of the PRDs thought that additional transplant psychiatry training is needed during residency and the best timing would be during the Consultation Liaison rotation.

78.9% of the Psychiatry Residents (PRs) reported never being asked to perform a TP evaluation, although 82.6% of them indicated that their training institution has an organ transplant program. The main anticipated source of anxiety regarding TP evaluation for residents was the possibility of giving the news of a negative determination of eligibility for receiving a transplant.

In contrast, 91% of the Directors of Psychosomatic Medicine Fellowships (DPMFs) indicated that they have an organ transplant service at their institution and all of them thought it likely that their trainees would be asked to perform TP during their fellowship. 91% of the DPMFs provide specific TP training including lectures, transplant elective and clinical exposure. Despite this, 73.7% of them also reported that more training is TP is needed.

Among the Psychosomatic Medicine Fellows (PMFs), 85.7 % had been asked to perform a TP evaluation during their training, while only 37% reported having received specific TP training. The majority (60%) of the PMFs reported that more TP training is needed, with topics in Axis II disorders and medication interactions being considered the most important.

Conclusions: The majority of respondents thought it likely that residents and fellows would be asked to perform TP during their training and in future careers. There is also a perceived need for more TP training, particularly in the areas of Axis II disorders and medication interactions. Residency and fellowship programs should consider supplementing their existing curricula with more TP-related training

8. (T) A Co-location, Collaborative Care Model of Consultation and Liaison (C/L) Training in Child and Adolescent Psychiatry Training

Presenting Author: Alok Banga, MD, MPH

Co-Authors: Dan Connor, MD

Child Psychiatrists, including Child Psychiatry fellows and a supervising attending are embedded in the outpatient pediatric primary care clinic on a part-time basis and help primary care pediatricians assess and treat early-onset behavioral disorders presenting to primary care. The C/L experience occurs at Connecticut Children's Medical Center (CCMC), a freestanding pediatric hospital with pediatric emergency, ambulatory, inpatient, and subspecialty services serving generally poor, inner city children and adolescents residing in the greater Hartford, CT area. During the rotation child fellows consult to pediatric services in a dedicated pediatric facility focusing on mental health evaluation, assessment, treatment, and disposition issues in consultation to CCMC staff pediatricians. The primary care clinic at CCMC has 32,000 patient visits per year with patient ages from infancy to 21 years old. Ethnicity includes 83% Hispanic, 13% African American, 2% Caucasian, and 2% Other. Patients are 52% female and 48% male. The vast majority of children are impoverished from families living in inner-city Hartford, CT. Over 50% present with behavioral health disorders. Pediatricians reports a high level of satisfaction from having a Child Psychiatry Team co-located with them. Given that there are only 7000 Child Psychiatrists in USA and more than 60,000 Pediatricians, most of the mental health care in USA is provided by the Pediatricians. A co-located, collaborative model helped them to learn to provide care to more complex cases of ADHD, Mood Disorders, Trauma and Anxiety Disorders

9. (T) Development of an Active-Learning-Based Curriculum for Medical Students, Interns, and Residents on a Psychiatric Consultation Service

Presenting Author: Justin Smith, MD

Co-Authors: Scott Beach, MD, Rachna Raisinghani, MD, Rosita Santa Cruz, MD, Donna Chen, MD

Background: The University of Virginia Psychiatry Consultation-Liaison Service sees approximately 1200 new patients each year. The service is comprised of an attending physician, a second-year psychiatry resident, two psychiatry interns, two third year medical students, and the occasional fourth year student. Residents and interns spend approximately four weeks at a time on the service with schedules staggered between years, whereas medical students spend two weeks. Because of the clinical demands as well as the continuous overlap of residents and students joining and leaving the rotation, formal teaching on the service has traditionally been variable and determined largely by the availability and willingness of the attending physician

Methods: A "Consults Curriculum Committee," consisting of residents and faculty members with a strong interest in Psychosomatic Medicine was founded with the goal of creating a sustainable curriculum for students and residents on the service. Members expressed a desire for the curriculum to be resident-taught, interactive, and based on relevant cases as well as recent literature.

Results: Individual resident members began creating independent modules, intended to last approximately thirty minutes each, focused on major topic areas within the discipline (e.g., delirium, suicide assessment, demoralization vs. depression, etc.). Each module is intended to begin with a case chosen from the recent pool of patients on the consultation-liaison service. Generic examples are provided in the absence of an appropriate recent case. A short presentation, consisting of ten slides, provides essential didactic information on the subject, gleaned from classic articles as well as the recent literature. The second year resident on the service is responsible for leading the group through the presentation. He is expected to familiarize himself with the material ahead of time, and notes are provided for each slide that offer more detailed information or that target particular points towards various audience members. In this way, the presenter has the option of modifying the talk in order to better match the audience's needs. The format also allows for second year residents to gain valuable experience in a teaching role, thus fulfilling the ACGME requirement of residents as teachers.

Discussion: Creating a sustainable, resident-led curriculum for the consultation-liaison service allows for a more homogenous learning experience. Given the variability of the patient population, residents and medical students risk missing exposure to core topics in psychosomatic medicine in the absence of a formal didactic syllabus. This particular curriculum addresses the needs of adult learners by utilizing a multi-modal active-learning style, allowing second-year residents to serve as teachers while simultaneously encouraging participation from all learners.

10. A retrospective chart review identifying barriers to timely transfers from the general hospital to inpatient psychiatry

Presenting Author: Kristine Beard, LMSW

Co-Author: Lisa Seyfried, MD

Introduction: An important area of psychosomatic medicine involves the identification and evaluation of patients with psychiatric disorders admitted to the general hospital. In addition to initiating treatment, consultation-liaison (CL) teams are often asked to facilitate transfer from medical/surgical services to inpatient psychiatry. Delays in patient transfers can result in strained relationships with colleagues, contribute to bed shortage, and may postpone vital mental health care. We explored reasons for delays in transfers from the general hospital to inpatient psychiatry over 1 year.

Method: A 12-month retrospective chart review of CL cases was undertaken at the University of Michigan. In 2009, 1664 psychiatry consults were requested by medical and surgical teams. Of these, 124 consults resulted in transfer to our inpatient psychiatric unit. Time to transfer was calculated for each case and barriers to admission were identified. These included: bed availability, medical clearance, medical complexity, insurance/payment, need for 1-1 staffing, and legal complications. Each transfer was grouped into one or more of the above categories. We also included a grouping for transfers which did not have identifiable complicating factors.

Results: We found that 39.5% of the transfers did not have any complicating factors and, of these, 71.4% were transferred on the day of recommendation. The others were transferred within 1 day. Of the delayed transfers 24 % were admitted within 1 day, and 42.9% were admitted by day 2. We also noted that 45.3% of all delays were related only to medical clearance (mean delay 3 days, SD 2.6 days), while 12% were related to only bed availability (mean delay 1.7 days, SD 1.09 day), and 4% were related only to insurance (mean delay 3 day, SD 0 day). The remaining 38.6% of transfers had multiple complicating factors, most related to the combination of medical complexity (48.2%, mean delay 9.9 days, SD 11.4 days) bed availability, and medical clearance.

Conclusion: Delays in transfer are inevitable and can be frustrating for all parties involved. These data suggest that the primary barriers to transfer at the University of Michigan are medical clearance and medical complexity. This implies that, despite being affiliated with and located in an academic medical center, our inpatient psychiatry unit is not equipped to handle a high-level of medical acuity. Given this, it may be helpful to engage in further dialogue with medical/surgical teams to manage expectations around medically complicated cases. As criteria related to "medical clearance" are dependent on the accepting facility, it may be beneficial to routinely document what must be resolved on medicine prior to the patient being clear for inpatient psychiatry. This

study suggests that some of the frustrations surrounding delays in the transfer process could be mitigated by enhanced communication and increased liaison work

11. An analysis of cognitive capacity evaluations in the General Medical Hospital

Presenting Author: Madeleine Becker, MD

Co-Authors: Keira Chism, MD, Lex Denysenko, MD

To identify common factors that may correlate with a diagnosis of lack of dispositional capacity, we retrospectively analyzed 1000 cognitive capacity evaluations requested from our Psychiatric Consultation-Liaison service at our University Medical Hospital between the years of 2002 and 2009. We analyzed capacity evaluation requests for patient demographics, including age, gender, marital status, family support, race, medical and psychiatric diagnosis, and Mini Mental Status Exam scores (MMSE). We divided capacity evaluations into medical and dispositional decision making. We assessed the most common factors that are associated with lack of capacity. Common factors that correlated with lack of capacity were identified, and are discussed. The potential conflict between concerns for patient autonomy and patient safety were also recognized, and are discussed.

12. From Liver Transplants To Rodents: Cyclosporine Reduces Alcohol Consumption Independent Of Sucrose Consumption In C57bl Mice

Presenting Author: Thomas Beresford, MD, FAPM

Co-Authors: Tina Fay, Natalie Serkova, MD Peter Wu, MD

Background: The calcineurin inhibitor cyclosporine (CsA) is an immunosuppressant routinely prescribed after liver transplant. Previously, we hypothesized that CsA reduces alcohol consumption and reported positive results in C57BL mice (Beresford et al., 2007). Whether this 1) occurs from an anhedonic effects, and 2) is dose related is not known. To answer these questions, we measured the dose-dependent effects of CsA, hypothesizing that alcohol drinking is independent of sucrose consumption.

Methods: 1) In a modified limited access paradigm, C57BL mice (n=30) received PO alcohol consumption training, starting with 0.6% and increasing to 10% alcohol solution. Following this, each mouse received vehicle (0.2 ml, IP) for 5 consecutive days and one of three CsA doses (10, 30, or 50 mg/kg in 0.2 ml, IP) for 5 consecutive days, in random order, before each 2 hour limited access session. Imbibed EtOH quantities were measured and recorded as g/kg per animal. 2) To assess the anhedonic effect of CsA on the consumption of sucrose, a separate test group (n=12) of C57BL mice were trained to drink 30% sucrose solution. The mice were then given vehicle (0.2 ml, IP) or CsA (50 mg/kg or 100mg/kg in 0.2 ml, IP) 30 minutes before limited access to the 30% sucrose solution. CsA concentrations in the brain were measured using LC-MS technique.

Results: CsA exposure at each of the three doses (10, 30, 50 mg/kg) reduced alcohol intake significantly (Student's t-test): from 2.26±0.10 to 0.91±0.10 g/kg ($p<0.001$,), from 2.49±0.17 to 0.68±0.07 g/kg ($p<0.001$), and from 2.55±0.16 to 0.74±0.05 g/kg of alcohol solution ($p<0.001$), respectively. In contrast, CsA (50 mg/kg) increased the level of consumption of 30% sucrose solution from 5.47±0.75 g to 8.72±0.95 g ($p<0.023$). The CsA brain levels were 59.77±15.56 n/g (n=4) and 323.90±72.04 ng/g (n=5) in mice treated with 50 mg/kg and 100 mg/kg CsA respectively.

Conclusions: These data suggest that CsA can selectively and dose-dependently reduce voluntary alcohol consumption through a mechanism other than that producing a drive to reduce sucrose intake. The selective reduction in alcohol choice occurs at lower doses than previously thought and may be related to CsA concentrations in the brain. Characterizing specific mechanisms of action will occupy the next steps in this line of investigation. (NIAAA, 5R21AA016294)

13. Factitious Disorder Presenting as Refractory Hypertension

Presenting Author: Bradford Bobrin, MD

Co-Authors: Binu Pappachen

We present a 42 year old gentleman with a known history of hypertension who presented to the hospital with a severe hypertensive episode, presenting at triage with a bp of 188/126. He complained of headache, blurry vision, dissyness, nausea and stomach pain for 3 days. In the ER his bp rose as high as 259/226. At the time of this presentation he was on seven anti-hypertensive medications. He was worked up in the hospital for refractory hypertension but no organic reason was found to explain his lack of response to his medications. However, during his hospital stay and work-up, the nurses were noticing that after he would receive his medications he would get up and go to the bathroom. In response to this the medical staff treated him with a catapress patch (he was already on clonidine po) and did not allow him to get out of bed. Doing this caused him to become hypotensive (60/30). This extreme response to catapress while the patient was taking seven antihypertensives including clonidine along with his behavior led the medical team to conclude that he was hypertensive because he wasn't taking his medication. Thus, a psychiatric consult was called to determine if this was a facticious disorder. During the consult, he admitted to us that he was not taking his medications because he was depressed and he wanted to die. He maintained this attitude to the end of his medical hospitalization and was subsequently transferred to our psychiatric unit. After the initial discovery of his non-compliance, he then became comlpliant and had occasional bouts of hypertension without symptoms and never getting above a systolic of 200.

14. Rehospitalization Post-Renal Transplantation: A Comparison of Geriatric and Non-geriatric Recipients

Presenting Author: Caroline Burton, MD

Co-Authors: Maria Lapid, MD, Sheila Jowsey, MD, FAPM, Suzanne Norby, MD, Terry Schneekloth, MD, Teresa Rummans, MD, FAPM

Background: The number of geriatric renal transplant recipients is growing as the American population ages. In general, renal transplantation in elderly recipients has improved long-term survival outcomes. However, geriatric individuals experience more complications from renal transplantation than younger recipients, although factors that influence posttransplantation outcomes in the elderly have not been well studied. The objective of this study was to compare clinical characteristics, hospital readmission, and mortality between geriatric and non-geriatric patients who underwent renal transplantation.

Method: A retrospective chart review was conducted on patients hospitalized for renal transplantation during a 12 month period in 2005. Patients 65 years and older at the time of transplantation were identified. A random sample was obtained from the remaining patients to form the non-geriatric group. Demographic and clinical information were collected and analyzed.

Results: A total 235 patients underwent renal transplantation. Forty-five patients were 65 years of age and older, mean age 70.4 years, range 65 to 83. In the random sample of 45 non-geriatric patients, mean age was 45.6 years, range 22 to 64. The geriatric group had more cerebrovascular disease (p=0.006) and hypertension (p=0.03), while the non-geriatric group had more glomerulonephritis (p=0.04). Interestingly, the non-geriatric group had more psychiatric histories (p=0.03), however, regardless of age the most common psychiatric history was that of depressive disorders. There was no difference between the two groups with respect to transplant admission length of stay, post-operative delirium, allograft rejection, and infection. While not significantly different, rehospitalization rates were high for both geriatric (42%) and non-geriatric (47%) groups. The geriatric group had a higher mortality (p=0.04) within one year of transplantation.

Conclusion: Our study group had high rehospitalization rates, and the geriatric group showed increased mortality. Depressive disorders were the most common psychiatric history, regardless of age. Future studies should explore whether psychiatric factors affect renal posttransplantation outcomes.

15. Delirium: Incidence and clinical and epi-demiological characteristics in a Colombian university hospital

Presenting Author: Carlos Cardeno-Castro, MD

Co-Authors: Diana Restrepo-Bernal, MD, Lina Paramo, MD, Sigifredo Ospina, MD, Jorge Calle, MD

Purpose: To determine the incidence and the clinical and epidemiological profile of delirium at the university Hospital San Vicente de Paul in Medellin, Colombia.

Methods: A descriptive prospective transversal section study was carried out. patients over 18 years old were assessed to determine the presence of delirium and related clinical and sociodemographic features.

Results: 421 patients were evaluated of whom 29 met the diagnostic criteria for delirium according to CAM, and the diagnostic criteria of DSM-IV-TR. The delirium incidence proportion was 6.9%. 62.1% of patients with delirium were male and the average age was 64 years. Motor subtypes were mixed 37.93% (n=11), 24.14% (n=7) hyperactive, 31.33% (n=9) hypoactive, and 6.9% had no motor disturbance. In 86.2% of the patients, the delirium was due to multiple etiologies. 27.6% of the patients had arterial occlusive chronic disease. The average days of hospitalization were 37. Delirium was identified by treating pysicians in 75.9% of patients. Improved of delirium in 59% and 13.8% of patients with delirium died during hospitalization.

Conclusion: Delirium is a frequent clinical condition in the general hospital associated with a longer hospital stay and high mortality

16. Barrier-Focused Patient Navigation to Facilitate Mental Health Treatment for Depressed HIV Patients: Alternative or Extension of Collaborative Care?

Presenting Author: Joyce Chung, MD

Co-Authors: Carol Alter, MD, FAPM, Kathryn Walseman, MD, Alejandra Hurtado, MD, Christina Moynihan, MD, Charlotte Brown, MD

Introduction: Collaborative care interventions that provide integrated treatment of depressive and anxiety disorders in primary care have been successfully developed and tested. Yet, the dissemination and implementation of this model has been limited, and its impact on access and quality of care for mental disorders in real world practice is unclear. New intervention models that provide alternatives to collaborative care, especially for disadvantaged or underserved populations, are needed.

We piloted a barrier-focused patient navigation (PN) intervention with 16 depressed HIV patients to evaluate feasibility of linking medical and mental health systems of care and successful referral to appropriate treatments in the community. PN does not provide mental health treatment but identifies and facilitates more efficient use of existing mental health resources.

Methods: We reviewed patient navigation (PN) as it was developed in cancer care and adopted a barrier-focused definition of navigation that emphasizes the navigator's role in identifying barriers and adopting strategies to reduce barriers. Because there are no existing studies of navigation

to facilitate mental health treatment, we developed a navigator training manual and a two session intervention manual.

We piloted the PN intervention with HIV patients because of high rates of depression in this population, and because many are low-income and minority. Infectious disease MDs referred depressed patients for study intake by the clinic case manager. Two navigators: a personal care attendant with strong ties to the African American community and a college graduate with community outreach experience were hired. They delivered the PN intervention with supervision by a psychiatrist.

Results: Navigator training and intervention components will be described. Highly salient barriers to care and stigma beliefs are identified. Referral outcomes and factors associated with referral success as well as lessons learned will be presented.

Conclusions: Barrier-focused PN to promote receipt of depression treatment by disadvantaged HIV patients is feasible using trained lay navigators.Advantages of PN include efficient use of mental health resources, low cost of navigators, and positive reinforcement for medical providers to identify depression among their patients. Comparison of PN and collaborative care interventions will be presented.

17. (T) Physicians' perceptions of sickle cell patients' pain experience.

Presenting Author: Vanessa Citero, MD, PhD

Co-Authors: Fatima Lucchesi, MD, M. Stella Figueiredo, MD, Wally R. Smith, MD, James L. Levenson, MD, FAPM

Background: The physician's perception of a patient's pain experience is subjective. It is not clear how much the physician considers the patient's assessment of the intensity that he or she feels. The physician's knowledge and beliefs can influence the clinical pain evaluation and when the physician's perception is different from the patient's, it can contribute to inadequate control of pain. Patients with sickle cell disease (SCD) describe the pain that they feel to their physicians, but the physician determines treatment according to what he/she perceives during the scheduled visit.

Purpose: To compare the pain experience described by the patient during the scheduled visit, with the physician's perception of the patient's pain experience after the visit.

Methods: 54 SCD adults and 54 physicians were enrolled in a cross-sectional study. Before the scheduled visit, the patients answered 3 ratings (from 0=none to 9=extremely) about their pain experience in the last 24 hours: pain intensity (how badly I hurt), distress intensity (how upset I felt because of the pain), and interference intensity (how much the pain kept me from my activities). After the visit, another interviewer asked the physician to provide the same ratings regarding the patient, and they also answered a questionnaire about which aspects they considered in rating the patient's pain experience. The intraclass correlation coefficient (ICC) was analysed to measure the agreement between physician and patient opinions.

Results: Physicians considered the patients' pain experience worse than what the patients rated: mean of 2.43 vs. 1.98 for pain intensity; mean of 2.51 vs. 1.63 for distress intensity; mean of 2.57 vs. 0.84 for interference intensity. Only the pain intensity ratings were correlated ($r=0.35$, $p=0.03$) and showed an ICC statistically significant (ICC=0.42; $p=0.04$). Physicians considered major factors in rating patients' pain intensity the following subjects: pain intensity described by the patient (96%), blood test results the day of the visit (63%), length of disease (25%), and the SCD genotype (18%).

Conclusion: Almost all physicians considered their patients' opinion about their pain intensity, and they are prone to classify patients' pain intensity higher than the patient himself or herself. One possibility is that clinical aspects such as the blood test results can interfere with physicians' perceptions.

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18. (T) Integrated and measurement-based depression care: clinical experience in an HIV clinic

Presenting Author: Shane Coleman, MD

Co-Author: Oliver Freudenreich, MD,FAPM

Purpose: Depression is common in patients with HIV/AIDS. While randomized trials have shown the efficacy of treatment for depression in HIV/AIDS patients, the implementation of evidence-based treatments in real-world settings remains a challenge. Using an integrative approach to the psychiatric and medical care of patients with HIV/AIDS and implementing measurement based depression care for those with co-morbid depression has been proposed as one way of improving clinical outcomes.

Methods: Longitudinal clinical chart review study of patients with HIV/AIDS who attend an infectious disease outpatient clinic at a tertiary care hospital, and who were referred for management of depression to an integrated, on-site psychiatrist. A self-report depression rating scale (Beck Depression Inventory-II) was used to track symptoms over time.

Results: We will report the initial clinician diagnosis of patients referred for depression and their diagnostic stability over time. For those patients with depression and at least one-year follow-up, we will report treatment persistence and clinical outcomes.

Conclusions: We will discuss implications of our findings with regard to establishing effective depression care at the interface of primary care and psychiatry. We will also

examine barriers to collaborative care arrangements in specialty care settings and the limits of measurement-based care.

19. From Consultation to Construction: Building and maintaining an integrated, funded, collaborative Behavioral Oncology Program

Presenting Author: Mary Helen Davis, MD

This presentation will overview the development of a fully imbedded psychoongology program within the practice of a 23 member medical and surgical oncology practice. The challenges of proposing and negotiating a comprehensive program, including financing will be outlined. I will explore the essentials of what it takes for programatic success as well as potential challenges and pitfalls. The behavioral oncology program of the Norton Cancer Institute began as a limited consultation model with limited resources to it's own division with two fulltime employed psychosomatic psychiatric physicians and two nurse practioners with plans for additional expansion. Since it's inception we have survived a change in medical leadership within the oncology division as well as change in hospital administration. These changes can be historically devestating to combined, integrated programs. I will overview strategies for positioning an integrated program, assisting decision makers in understanding the role of value added, and how to stay alive in a downturned economy.

Discussion will focus on both the overt, clinical responsibilities of a practioner in an integrated program and the covert, system wide nonclinical roles. Exploration of medical physician buy in, issues of stigma in mental health services and psychiatric physician leadership in coordinating psychosocial care within an institution will be overviewed.

20. (T) Catastrophizing and depression in sickle cell disease

Presenting Author: Andre L. De Camillo, MD

Co-Authors: Maria Stella Figueiredo, MD, Wally R. Smith, MD, Donna K. McClish, MD, James L. Levenson, MD, Vanessa A. Citero, MD, PhD

Background: Catastrophizing is a negative coping component that refers to an exaggerated negative orientation toward pain experience. African-American adults with sickle cell disease (SCD) have a higher mean catastrophizing score than found in studies of other chronic pain conditions that are not lifelong and life-threatening. Depression and catastrophizing share similar characteristics; however, while correlated, they are different constructs, and there are few data comparing them across cultures.

Purpose: To describe the correlation between catastrophizing and depression in Brazilian SCD adult patients, and ultimately compare them to patients in the U.S.

Methods: 100 Brazilian SCD adults were enrolled in a cross-sectional study. The data included demographic and clinical variables, as well as the PHQ-9 and the Catastrophizing Subscale (CAT) of the Coping Strategy Questionnaire. CAT is composed of 6 statements that begin with "when I feel pain...," and end with: "...it is awful and I feel that it overwhelms me", (2) "It is terrible and I feel it is never going to get better", (3)"I worry all the time whether it will end", (4)"I feel I can't go on", (5)"I feel I can't stand it any more", and (6)"I feel my life isn't worth living". Patients rated each item on a 7-point Likert-type scale to indicate how often they used these negative self-statements (from 0=never to 6=always). We tested correlation of all CAT statements with all 9 depression items using Spearman correlation. Then we compared these data from the Brazilian patients to the 226 Afro-American SCD adults, previously published. Final data to be presented at the meeting will include full subject pool.

Results: CAT was weakly and non-significantly correlated with depression severity (r=0.34; p=0.07). Only 4 CAT statements showed moderate correlation (p<0.05) with depression items: the PHQ item "poor appetite or overeating" correlated with CAT statements 2 and 6; the PHQ item "moving and speaking so slowly that other people could have noticed?" with CAT statement 6; and the PHQ item "feeling bad about yourself or that you are a failure or have let yourself or your family down" with CAT statement 5.

Conclusion: We found that only one statement of catastrophizing among SCD patients correlated to a subjective aspect of depression, while three such statements related to somatic symptoms of depression. Since catastrophizing is a cognitive strategy to deal with pain, its expression seems to be more somatic than emotional.

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21. Munchausen Syndrome By Proxy: an adult dyad

Presenting Author: George Deimel, MD

Co-Authors: Sania Raza, MD, Maria Lapid, MD, Caroline Burton, MD

Background: Munchausen syndrome by proxy (MSP), also known as factitious disorder by proxy, is a form of abuse in which there is a deliberate production or feigning of physical or psychological signs or symptoms in another person under the individual's care. While there is extensive literature on this syndrome with adult perpetrators and naïve child victims, cases of adult-adult MSP have rarely been reported.

Cases: We present two cases of adult-adult MSP. The first case is a 21 year old female who was brought in to the hospital by her mother for recurrent bacteremias extensively evaluated and treated previously at other institutions without success. Her past medical history was significant for Arnold-Chiari malformation s/p multiple decompression surgeries in childhood and autonomic dysregulation with Postural Orthostatic Tachycardia Syndrome requiring permanent line placement. During hospitalization in our facility, the

bacteremia remained intractable despite appropriate antimicrobial therapy. The medical resident caring for the patient subsequently found a syringe that did not belong to our facility containing a cloudy liquid in the patient's bed. The liquid in the syringe subsequently grew the same organisms found in her blood.

The second case is of a 23 year old female who was transferred to our facility for evaluation and treatment of a rash involving her external genitalia and medial thighs which had waxed and waned for five years. Her mother had taken her to numerous physicians and no clear etiology could be found. During hospitalization at our facility, the rash responded to topical treatment. Just before discharge the rash dramatically worsened. Because of suspicion regarding the patient's mother, the medical providers limited the mother's visitation and required nursing supervision of all visits. The rash immediately improved with no additional medical intervention. The purpose of our series is to present two cases that demonstrate an adult perpetrator with an actively participating adult victim as well as to examine the complex psychopathological behaviors and collusion that exist between these individuals.

Conclusion: Identification of MSP is often a difficult diagnosis. Clues to diagnosis include a passive victim and an omnipresent perpetrator often extremely knowledgeable in the medical field, discrepancies between the history and symptoms, and history of multiple previous investigations with no clinical improvement despite apparent appropriate therapy. MSP is a dangerous psychiatric condition that has an excessively high morbidity and mortality, either through the feigning of symptoms that lead to dangerous and unnecessary tests or the production of real disease intentionally. It is important for physicians to be aware of the adult-adult MSP syndrome in order to avoid performing unnecessary invasive investigations or pursuing potentially dangerous treatments. Psychiatric treatment is essential to avoid this kind of abuse.

22. (T) Co-morbidities and complications: a case of chronic catatonia and NMS in an adolescent girl with autistic disorder

Presenting Author: D. Edward Deneke, MD

Co-Author: Prachi Agarwala, MD

Purpose: Neuroleptic malignant syndrome (NMS) is a well-defined entity consisting of autonomic instability, mental status changes, and muscle rigidity; it has been associated with antipsychotic medications, infections, and catatonia. NMS is considered to be a medical emergency, with mortality rates in the range of 20%. Autism, a disorder of neural development with impaired social interaction, language and behavior, has also been associated with catatonia. While the relationship between NMS and autistic disorder with catatonia has been documented, the direct relationship between autistic disorder and NMS remains understudied in the literature. Catatonia is frequently absent from the differential diagnosis of functional changes in patients, especially in behaviorally complicated patients with autistic disorder.

Methods: We present the case of a 17 year-old girl diagnosed with autistic disorder who presented after a slow, functional decline. At baseline, her vocabulary was approximately 100 words and she was able to complete activities of daily living (ADLs), including toileting and showering. Over the past three years, her verbal output had diminished, oral intake lessened and she could no longer perform ADLs without help. Prior to presentation, she became agitated and aggressive. In the ER, she was given IM haloperidol for agitation and admitted to the inpatient unit. Within 24 hours, she developed rigidity and tachycardia, with increasing agitation. Given her constellation of symptoms and medical instability, she was diagnosed with NMS and transferred to the pediatric ICU. CPK was elevated, peaking at 18000 IU/L. She was started on IV lorazepam, titrated to 7mg per hour. Due to limited response to high-dose benzodiazepine, electroconvulsive therapy was initiated. Symptoms of NMS subsided after 7 to 8 treatments. ECT was continued for ongoing signs of catatonia, including limited oral intake, grimacing, and withdrawal. She received a total of 31 treatments over 3 months.

Conclusion: This case illustrates the importance in being vigilant for signs of catatonia and NMS, especially in the presence of a pre-existing autistic disorder, and the necessity of treating these conditions in a timely fashion. High-dose benzodiazepines are useful in management of catatonia, but ECT should be considered early in the management of NMS. We hypothesize that our patient's comorbid autistic disorder and catatonia made her more vulnerable to developing NMS in the context of antipsychotic use. It is possible that the development of NMS may have been prevented by earlier diagnosis of and more rapid treatment of the catatonia. Further work is needed to better understand this relationship.

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23. (T) Connection Between Nervous System and Inflamed Bowel: Early Diagnosis and Treatment of Neuropsychiatric Manifestations of Inflammatory Bowel Disease.

Presenting Author: Parikshit Deshmukh, MD

Co-Authors: Gaurav Kulkarni, MD, Jeanne Lackmap, MD

Background: The neuro-chemistry related to Inflammatory Bowel Disease (IBD), and psychiatric manifestations thereof, have been studied extensively. However, data summarizing these findings, and bridging the gap between current understanding and need for future research, is still lacking.

Methods: We conducted a Pub-Med literature review to identify the association between IBD and psychiatric disorders, and then correlated this information with

associated literature on the neuro-chemistry of psychiatric illness. Different combinations of 'psychiatric', 'IBD', 'inflammatory bowel disease', 'phramacological', 'depression', 'anxiety', 'pediatric', 'psychological', 'treatment', 'mental health', 'screening', 'stress', 'physiologic', 'psychotherapy', and 'antidepressants' were tried to obtain the articles. More 300 relevant articles were considered. The data was interpreted made without doing metanalysis.

Results: A bidirectional relationship between IBD and neuro-psychiatric illnesses was observed across all age groups, with depression and anxiety being the most common psychiatric disorders associated with IBD. Alteration of neuropeptides such as Subtance P, Corticotropin Releasing Hormone, Neurotensin, Vasoactive Intestinal Peptides, as well as elevations of inflammatory markers such as C-reactive protein and Tumor Necrosis Factor-alpha, appear to be associated with both IBD and psychiatric disorders. Altered immune mechanisms and parasympathetic activity also may be responsible for this correlation. Numerous studies reflect the advantages of treating psychiatric disorders in patients with IBD, including faster recovery, improved quality of life, and reduced health care utilization. Using screening tools and then implementing appropriate treatment modalities based on symptom identification are crucial elements of successful treatment.

Conclusions: Though a substantial amount of literature is available to confirm the presence of a relationship between IBD and psychiatric disorders, very limited literature is available on the neuro-pathological basis of psychiatric disorder in IBD and on psychiatric treatment in IBD. Further studies in this regard will be useful.

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24. (T) Lamotrigine-induced Anticonvulsant Hypersensitivity Syndrome Can Cause Acute Respiratory Distress Syndrome in Patients with Autoimmune Disorder: Case Report and Recommendations

Presenting Author: Parikshit Deshmukh, MD

Co-Authors: Stefani Parrisbalogun, MD, Joseph Locala, MD

Background: To our knowledge, a case of lamotrigine induced anticonvulsant hypersensitivity syndrome (AHS) leading to severe Acute Respiratory Distress Syndrome (ARDS) (requiring intubation) in a patient with autoimmune disorder has not been reported to date.

A 41-year-old woman with a past medical history of a nonspecific autoimmune disorder presented to Urgent Care Clinic with a severe generalized macular rash, fever with rigors and hypotension 9 days after starting Lamotrigine (25 mg PO daily) for possible Bipolar II disorder. Patient reported having prodromal symptoms such as malaise, fever, nausea, vomiting since 3 days prior to the admission. The rash began on her abdomen and disseminated to the back, chest and face in 5 hours on the day of presentation. Patient also had hypotension (69/45). The Dermatology service suspected drug rash with eosinophiliaand systemic symptoms (DRESS) as the skin biopsy indicated possible drug reaction. Patient developed ARDS and was subsequently intubated on 5th day of hospitalization as the oxygen saturation continued to decrease despite continues oxygen therapy. Her hospital course was further complicated by multi-organinvolvement including rhabdomyolysis leading to nonoliguric hemodyamically mediated Acute Tubular Necrosis, DIC, pancreatitis (on day 19), hepatitis, and delirium. Possibility of toxic shock syndrome was suspected but no source of infection was found and patient did not have leukocytosis. With the use of antibiotic,antiviral, steroid and supportive therapy, the patient showed improvement in her rash and other clinical symptoms over next 20 days.

Conclusion: AHS and severe ARDS were associated with lamotrigine use in patient with nonspecific autoimune disorders. Clinicians need to be aware of this possibly life threatening syndrome which is not dose- related, can manifest very early on in initiation of treatment with lamotrigine, and has prodromal symptoms which can be monitored. Patients with autoimmune disorders may also be more susceptible to this syndrome when treated with lamotrigine.

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25. The effect of stimulant use on access and antiviral treatment in an integrated chronic hepatitis C clinic

Presenting Author: Eric Dieperink, MD

Co-Authors: Astrid Knott, MD, Paul Thuras, MD, Nancy Koets, MD, Christine Pocha, MD

Background: Substance use problems remain the most significant barrier to antiviral treatment for chronic hepatitis C (CHC). Although stimulant use is common in the general population and can cause significant behavioral problems, few data are available in CHC patients regarding the impact of stimulant use on access to care and antiviral treatment.

Purpose: To determine the impact of stimulant use (cocaine, methamphetamine) on antiviral treatment in an integrated hepatitis clinic.

Methods: Retrospective chart review of 449 consecutive veteran patients with CHC with an initial appointment in the hepatitis clinic between 01/03/2005 and 12/22/2008 who were screened with a self-report drug-use questionnaire (DUQ) (amphetamines, cocaine, cannabis, heroin, LSD, and Ecstasy), an alcohol screen (AUDIT-C), the Beck Depression Inventory (BDI) and a Urine Drug Screen (UDS). Antiviral treatment initiation and viral response were obtained through 4/1/10. Patients with positive screens were referred to a co-located mental health clinician who managed the patient or coordinated care with current mental health providers.

Results: Most patients were male (97%), mean age was 53.3 years, mean BDI was 13.3 (BDI?10 mild depression), mean AUDIT-C was 3.8 (?4 hazardous alcohol use), 93.5% (420/449) reported lifetime drug use. A total of 15.4% (69/449) reported either stimulant use in the last 6 months on the DUQ (57/69) or had a positive urine drug screen for stimulants (28/69). In the 69 patients with stimulant use the mean BDI and the AUDIT-C scores were significantly greater than those without stimulant use ($t(423)=4.7$, $p<.001$, $t(433)=3.6$, $p<.001$; respectively). Patients with stimulant use dropped out of care more frequently (40% vs. 22.5%), but patients who were seen by the co-located MH practitioner were more likely to be offered antiviral therapy. To date 17.4% (12/69) have begun antiviral therapy. There were no differences in treatment start rates among patients with and without recent stimulant use and no differences in SVR rates among those who started treatment.

Conclusions: Cocaine and methamphetamine use are common in patients with CHC with nearly 1/6 of patients reporting recent or testing positive for stimulant use. Despite the high rate of stimulant use, many patients started antiviral therapy and SVR was not diminished. Integrated care services provided in a hepatitis clinic may enhance access and antiviral treatment outcomes in this difficult to treat population.

26. (T) A Challenging Case of Acute GHB Withdrawal

Presenting Author: Aparna Dole, MD

Co-Authors: Kathy Coffman, MD, FAPM, Elias Khawam, MD

Purpose: GHB abuse has been increasing recently. It quickly produces combinations of alcohol and ecstasy effects. It causes euphoria, decrease anxiety, sedation, loss of motor control, emotional warmth and sensuality enhancement. Consultation Liaison psychiatrists are being called to evaluate and manage these challenging cases in the emergency department and intensive care unit. This has also resulted in confusion for medical care providers who treat patients in GHB withdrawal. There has been few case reports presented in the literature describing symptoms and management of acute withdrawal from GHB. We will review the literature and discuss GHB physiology, intoxication and withdrawal symptoms, pharmacological treatment options and other management recommendations.

Method: This is a 46-year-old white man who was admitted to the hospital for second opinion for seizure like episodes. Within 24 hours of admission his mental status deteriorated rapidly with agitation, hallucinations, and confusion. Initial treatment was empirical with a high suspicion for substance withdrawal. However, after excluding all other diagnoses and taking a more thorough history, the diagnosis of acute withdrawal from GHB was made. He was admitted for 17 days to the hospital.

Results: Patient remained agitated, delirious, confused and psychotic despite being on high doses of Lorazapam, Haldoperidol, Gabapentin, Baclofen, and Olanzapine. He needed prolonged stay in the ICU until a complete and sustained resolution of delirium has been achieved.

Conclusion: Gamma-hydroxybutyrate (GHB) is an emerging drug of abuse which is easily made and sold under multiple names such as Renutrient and Revitalize Plus. In addition, GHB analogs such as Gamma-butyrolactone (GBL) continue to surface, often disguised as health food supplements, and can be readily found on the Internet. Medical personnel who might come in contact with patients using these dietary supplements should be aware of the possibility of GHB dependence and withdrawal. While successful attempts at self-tapering doses of GHB have been reported among abusers, most GHB-dependent individuals are unable to tolerate the withdrawal symptoms. GHB withdrawal syndrome has aspects of alcohol withdrawal (Delirium tremens) and benzodiazepine withdrawal (long duration of symptoms). Symptoms consist of delirium, severe confusion, psychosis and agitation. An aggressive 7-14 day inpatient care with close monitoring is recommended.

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27. (T) The National Electronic Health Record: Developing Policy and Practice

Presenting Author: Matthew Doolittle, MD

Co-Authors: Philip Bialer, MD, FAPM, Andrew Roth, MD, FAPM

Purpose: A great deal of publicity has surrounded recent health insurance reforms, but less attention has been paid to initiatives previously passed as part of the American Recovery and Reinvestment Act of 2009. The $19 billion Health Information Technology for Economic and Clinical Health (HITECH) Act is part of the larger economic stimulus bill that is intended to bring about “The utilization of an

electronic health record for each person in the United States by 2014." We provide a brief survey of this large and developing project.

Methods: HITECH mandates the creation of a website to publicize the purpose of the law and the progress of its implementation. An examination of these materials, the text of the act itself, and information from a hospital health policy officer are examined.

Results: HITECH establishes a process to develop standards for an Electronic Health Record (EHR). The best-documented advantage of an EHR is the reduction of medication errors through electronic prescribing. Other possible advantages include improved coordination of care, reduced treatment errors related to incomplete historical knowledge, reduced costs associated with redundant information gathering, and more efficient access to public health data. The most challenging preliminary steps include developing and financing effective technology and overcoming physician resistance. The law addresses the technological hurdle through grants for information technologies and establishing a national committee to evaluate and set technological and quality standards. It also establishes a network of regional public-private partnerships that will disseminate technology to local areas while also providing feedback about effectiveness of information technology and of medical treatments. The financial challenge is addressed through incentives for the development of third-party information systems that would remotely manage and store electronic health information in exchange for fees collected from clinicians, fees collected from selling de-identified medical information for purposes of research, or both. The law addresses provider resistance through temporary Medicare and Medicaid reimbursement incentives for "meaningful users" of information systems meeting minimal standards, and later through reimbursement penalties for those not participating.

Conclusions: HITECH aims to overcome technological, financial, and cultural barriers to the universal adoption of an EHR in the United States. It aims to encourage private enterprise, and introduces the possibility of selling de-identified health information for unspecified "research" purposes. HITECH represents a major initiative in health care independent of recently enacted reform, envisioning a widely accessible EHR for all Americans with the aim of reducing costs and medical errors while providing more efficient access to outcomes data. If implementation proceeds as anticipated, it will influence every patient encounter in the country, with broad effects on teaching, public health, privacy, and medical knowledge.

28. Depression level at baseline predicts recovery following liver transplantation

Presenting Author: Anne Eshelman, MD

Co-Authors: Marwan Abouljoud, MD, Tina Meyer, MD, Diane Fischer, MD, Dilip Moonka, MD, Daniel Paulson, Kim Brown, MD

Background: Recovery from major medical intervention is known to be compromised by depression. The present study investigated the relationship between depression symptoms and recovery following liver transplant. We hypothesized that depression at baseline would predict subjective post-transplant recovery.

Methods: The sample includes 72 liver transplant recipients at a large, mid-western health care center. The sample had a mean age of 54.3 years, was 40.3% female, and was ethnically 20.8% African American, 76.4% Caucasian, 1.4% Hispanic and 1.4% other. The mean educational level was 13.5 years. Depression was measured at baseline using the Hospital Anxiety and Depression Scale-Depression (HADS-D). At 6 month post-surgery patients were asked to indicate how long it took them to make a full recovery (<1 month, 1-3 months, 3-6 months, 6 months), and if they have not made a full recovery how much improvement they have noticed since their transplant (condition has worsened, 0-25% improvement, 26-50% improvement, 51-75% improvement, 76-99% improvement). Responses to these questions were combined into a single recovery index ranging from "my condition has worsened" to "complete recovery in less than 1 month."

Results: Multiple regression was used to investigate the effect of depression (HADS-D) on recovery at 6-month follow-up. After controlling for income, gender, age, baseline MELD score, and history of alcohol abuse, HADS-D score accounted for an additional 12.7% of variance on the recovery index (p=.003). HADS-D score and recovery index had a zero-order correlation with -.373. Overall, the model accounted for 20.1% of recovery index variance. Logistic regression was used to evaluate whether the advised HADS-D cutoff for mild depression of 8 relates to frequency of a patient report of full recovery. After controlling for age, gender, income, MELD score, history of alcoholism, and HADS-Anxiety score (none of which were statistically-significant predictors), having a baseline HADS-A score over 7 related to a lower incidence of having made a full recovery (?=-.189; p=.038; Exp(B)=.828).

Conclusions: The results supported our hypothesis that depression before liver transplantation predicts subjective recovery following liver transplantation. This finding supports past research regarding the influence of mood on medical recovery, and underscores the importance of identifying and treating depression prior to transplantation.

29. (T) A Case of Delirious Mania in an HIV-Positive Patient

Presenting Author: Madeleine Fersh, MD

Co-Author: Jean Dickson, MD

Objective: To describe a case of delirious mania in an HIV-positive patient potentially related to an interaction between lopinovir/ritonavir and psychotropic agents.

Background: A 46-year-old woman with bipolar I disorder, HIV and history of poor medication compliance was admitted to an inpatient psychiatric unit and started on olanzapine 5mg daily and VPA 500mg daily. The patient was restarted on her antirretrovirals, including lopinovir/ritonavir and emtricitabine/tenofovir on the fifth hospital. Four days later

she was transferred to the medical service for evaluation of delirium. After a failed trial of olanzapine up to 45mg and a partial response to lorazepam 8mg in attempts to treat a suspected delirious mania, the patient's VPA dose was increased to a concentration of 85mcg/mL 18 days after restarting the anti-retroviral regimen, which led to significant clinical improvement.

Discussion: Delirious mania is likely an under diagnosed clinical phenomenon, given the lack of consensus on clinical criteria and effective treatments. In this case, the treatment of delirious mania was complicated by the myriad of potential drug interactions between the patient's antiretrovirals and psychotropics. Olanzapine's metabolism can be induced by ritonavir, leading to a decision to increase the olanzapine dose. However it was the VPA titration, and perhaps also the lorazepam titration, which led to marked clinical improvement. We postulate that the delirious mania was related to a decreased VPA concentration secondary to ritonavir-mediated induction of VPA glucuronidation. While ECT is often the treatment of choice for delirious mania, it was not utilized in this case as the patient was already improving clinically with psychotropic dosing adjustments.

Conclusions: Clinicians should increase their index for suspicion for delirious mania, especially in a psychiatric patient with serious medical comorbidities, and should be aware of the clinical characteristics and available treatments. Patients who are simultaneously receiving psychotropic and antiretroviral agents need to be monitored closely for potential drug-drug interactions.

30. Survey of Psychosomatic Medicine Fellowships: Training in substance use disorders

Presenting Author: Joji Suzuki, MD

Co-Authors: David Gitlin, MD, FAPM, Grace Chang, MD

Background: The expert consensus document outlining the core competencies for fellowship training recommends that psychosomatic medicine (PM) psychiatrists possess the fund of knowledge, and the application of such knowledge in the clinical setting, for substance use disorders (SUD). In the practice guidelines of the Academy of Psychosomatic Medicine, the authors indicate that SUDs are considered to be common problems that lead to a psychiatric consultation in the general medical setting. However, because the Accreditation Council for Graduate Medical Education does not require any specific training in the assessment and management of SUDs for the successful completion of a PM fellowship, the training in SUDs may vary tremendously from program to program. The aim of this survey study was to determine the nature of training PM fellows receive in the assessment and management of SUDs. All forty six PM fellowship training directors were approached to complete an anonymous online survey.

Results: Twenty one programs (45.6%) responded to the survey. All PM fellowship training directors felt PM fellows encounter patients with SUDs at least 20-40% of the time during clinical training. Twelve programs (57.1%) identified a specific addiction faculty supervisor, and the majority of such supervisors (63.6%) were board certified in addiction psychiatry. Thirteen programs (61.9%) identified an addiction psychiatry fellowship program within the same institution, and the majority of such programs (76.9%) allowed for collaboration between PM and addiction psychiatry fellows. Most programs (95.2%) offered didactic or case discussions on SUDs (range 0-20 hours). Eight programs (38.0%) offered training in motivational interviewing or brief interventions, even if limited-obtaining this training was more likely to be associated, although not significant, with the presence of an addiction psychiatry fellowship in the same institution (Fischer's exact test p=0.085). The size of the PM fellowship was not associated with any of the survey answers.

Conclusion: PM fellows encounter SUDs frequently during their clinical training, and just over half the programs offered direct supervision of fellows by an addiction faculty. The amount of didactics offered varied tremendously, and the majority of programs did not offer training in motivational interviewing or brief interventions. Possible implications for PM fellowship training requirements will be discussed.

31. (T) Blackwater Fever Caused by Plasmodium Falciparum

Presenting Author: Elisha Greggo, MD

Co-Author: Adekola Akao, MD, FAPM

Background: This is a report of a 21-year old African-American female who was brought to the emergency department after she was noted her to have increased confusion and fever. She had recently traveled to Africa for approximately 2 weeks and returned 3 days prior to presentation. She complained of headache, nausea, vomiting, fatigue, sweats and fever of 104 degrees. She stated that these were similar to the symptoms she had when she was previously diagnosed with malaria.

Mental Status exam revealed an irritable African American lady. She appeared her stated age. Her eye contact was minimal and she was barely cooperative. Her speech was slurred and reduced in rate tone and volume. Her mood was irritable and anxious, her affect blunted. There were no delusions or hallucinations. She was disoriented to day, date and time but not to person. A mini mental status examination was not performed at the time as she was uncooperative. Her insight into her illness was limited, her judgment was impaired.

She was admitted for rehydration and antibiotic treatment with 100 mg of doxycycline po daily and 648 mg of quinine po tid. The patient's laboratory results showed low white blood cell count, low hemoglobin, low platelets, and trace hemoglobin in the urine initially, with a slight drop in BUN. The patient's blood smear was positive for plasmodium falciparum. Doxycycline was continued and the patient's symptoms continued to improve. Her mental status also improved and after two days of treatment, she became adequately oriented to person, place and time and was discharged home with oral antibiotics. Discussion:

Malaria infestation continues to be a serious illness even in this modern day. The most problematic infective specie is

plasmodium falciparum which in its most virulent form can cause multi-organ failure and the potentially lethal cerebral malaria. The patient's hemoglobinuria and reduced BUN can be explained by a slight oliguria, a complication of malaria known as blackwater fever. Although, this patient was infested with the potentially most virulent specie, her clinical course was milder. This patient manifested some neuropsychiatric sequelae of malaria infestation, mainly delirium.

Neuropsychiatric sequelae have deen documented in malaria. Exanples include impaired consciousness, and seizures. Other CNS symptoms may include confusion, obtundation and deep unarousable seizures. Neurological complications include cerebellar ataxia as well as fine postural tremors.

The treatment of malaria and blackwater fever, is a medical emergency. Anti malaria drugs such as 4-amino quinoline (Chloroquine) and intravenous quinine should be used. However, there are recent reports of several chloroquine-resistant plasmodium falciparum. Alternatively, a combination of sulfonamide and trimethoprim or doxycycline should be used.

With the recent increase in immigration in the United States, physicians should be aware of malaria presenting with fever associated with neuropsychiatric symptoms.

32. (T) Conversion Disorder in an active military soldier: A Case report

Presenting Author: Elisha Greggo, MD

Co-Authors: Adekola Alao, MD, FAPM, Wendy Armenta, MD

Background: In this report, we will describe the case of a 29 yr old male who presented with hemiparesis, short-term memory loss speech impairment and severe migraine after returning from active military duty in Iraq. He was later diagnosed with conversion disorder.

The patient is a 29 yr old Caucasian active military male who presented with a headache after returning from Iraq. He had been exposed to military combat but denies witnessing blast injuries or loss of consciousness. He subsequently developed right sided hemiparesis and difficulty with his balance. In addition, he presented with short term memory loss. He was admitted to the hospital for a complete neurological work-up including complete neurological examination that was normal as well as a negative MRI and MRA of the head and neck. Other medical work-up was negative. His migraine was treated with amitryptiline 50 mg po qhs. Patient was also depressed and started on sertraline gradually titrated up to 200mg per day. Patient continued to have difficulty with his short-term memory loss and balance problems and re-presented to the hospital four months later with similar symptoms. At this time, he also presented with worsening of his depression and suicidal ideation. After a repeat initial negative medical and neurological work up, he was admitted to the psychiatric inpatient service for acute psychiatric stabilization and further neurological and medical work-up.

On admission, he was continued on his outpatient medications, sertraline 200mg daily and amitryptline 50mg qhs. It was noted that during the inpatient therapy sessions that as he talked about his childhood and became more comfortable in each session, his stuttering would improve and his leg strength would also improve. During his stay on the unit, he went from ambulating in a wheelchair to using a cane. He also underwent neuropsychological testing, which confirmed a suspected diagnosis of conversion disorder related to post-traumatic stress disorder. He revealed a tremendous amount of childhood trauma. His medical and neurological work-up during hospitalization were again negative and the likelihood of diagnosis of conversion disorder was further strengthened. In addition to his sertraline, clonazepam 0.5mg po bid was added to treat his anxiety symptoms. After 14 days of inpatient stay, the patient's neurological deficits continued to improve until the treatment team felt he was stable enough to be discharged. The treatment team recommended to the patient's commanding officer that he should be transferred to a long term PTSD inpatient unit.

Conclusion: This is a report of conversion disorder in an active military man. With increasing number of active military personnel ambivalent due to the unpopularity of the wars, it is expected that the prevalence of conversion disorder co-morbid with PTSD may actually increase.

33. (T) Acute Mental Status Changes with a Progressive Functional Decline in a Premorbidly High-Functioning Adolescent Male

Presenting Author: Joy Guerrieri Bang, MD

Co-Author: Chris Sola, DO, FAPM

Purpose: The sudden onset of psychosis with a precipitous functional decline is concerning for both psychiatric and neurologic etiology. While acute intoxication, infections, and certain psychiatric disorders are frequent etiologies for such behavior changes, it is important to consider other, less common, causes of encephalopathy including Klein Levin Syndrome, Encephalitis Lethargica, and Segawa's Disease. Additionally, cytochrome P-450 analysis should be considered when initiating a trial of psychopharmacologic therapy, particularly in patients with acute mental status changes and no previous psychiatric history.

Methodology The department of Psychiatry and Psychology was asked to consult on the acute onset of psychosis in a premorbidly high-functioning 17 year old adolescent male with no former psychiatric or neurologic history and no active medical issues. Prior to the consultation, his presentation and rapid functional deterioration were initially concerning for catatonia. Basic laboratory analysis was unremarkable. After a benzodiazepine trial and a course of ECT failed to improve his symptoms, a typical antipsychotic trial was initiated with poor results. We were consulted for continued management and care.

Results: What appeared initially as psychosis not otherwise specified was later determined to be encephalopathy of uncertain etiology with a waxing and waning course and

continued functional decline. Psychiatry and Neurology collaborated actively in his care, as his presentation was inconsistent with a primary psychiatric disorder. EEG monitoring and head imaging were inconclusive. Extensive laboratory tests revealed: 1) Low CSF tetrahydrobiopterin levels on two repeated measures and 2) CYP-450 genotype revealing two copies of null CYP2D6 alleles

Conclusion: This young man's clinical presentation was reflective of brain disease with predominant behavioral manifestations. Abnormal CSF neurotransmitters on two occasions support this hypothesis. Whether or not these abnormal findings represent a primary disorder of biogenic amine synthesis or a secondary effect of another brain disease remains unknown. Treatment options included saproterin hydrochloride, intravenous immunoglobulin (IVIG), intravenous steroids, intravenous valproic acid, and carbidopa-levodopa. Medication management of behavioral dyscontrol was further complicated by his CYP-450 genotypic profile.

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34. Randomized trial of psychological interventions to improve outcomes in hospitalized cardiac patients

Presenting Author: Chris Celano, MD

Co-Authors: Carol Mastromauro, Julia Boehm, MD, Herbert Benson, MD, Greg Fricchione, MD, FAPM, Sonja Lyubomirsky, MD

Background: Positive emotions have been associated with superior cardiovascular outcomes. Most studies of interventions for patients with cardiovascular disease have focused on the improvement of negative psychological states (e.g., anxiety, depression) rather than the cultivation of optimism, gratitude, and other postive emotions. However, there is increasing evidence of the benefits of treatment that focus on increasing positive psychological states.

Methods: In concert with experts in the field of positive psychology, we have developed a treatment manual for an 8-week phone-based positive psychology treatment intervention for patients with cardiovascular disease. In this treatment, subjects complete exercises related to gratitude, altruism, and optimism. In addition, we have adapted a treatment manual for a validated relaxation-based treatment ('relaxation response') to be implemented over the phone to the same cohort; this treatment involves daily CD-guided practice of a meditative intervention.

We are currently performing a three-arm randomized pilot trial (planned N=30, current N=11) comparing the impact of these two treatments and a control condition (recollection) among patients admitted to the hospital for an acute coronary syndrome or congestive heart failure. Subjects receive treatment over 8 weeks, first in the hospital and then over the phone, with weekly contact with a study traniner. At 8, 16, and 24 weeks, subjects are assessed by blinded raters on study outcomes.

Study outcomes include patient ratings of happiness, optimism, illness perception, depression, health-related quality of life, and cardiac symptoms on validated self-report measures. Outcomes will be compared among groups to assess trends toward benefit in this pilot study.

Results: We will outline the development and contents of the treatment manuals designed for the study, describe the feasibility of enrolling subjects and implementing the intervention on the inpatient units, and describe baseline patient characterisitcs. By the Annual Meeting, we will also have preliminary outcomes of the randomized trial to report.

Discussion: These low-burden, phone-based mind-body interventions are among the first to be tested in patients with cardiac disease, and have the potential to be a well-accepted and powerful interventions for vulnerable patients with serious cardiac disease. The results of this study should suggest next steps in this line of investigation.

35. Working with Haiti Earthquake Survivors in Consultation Practice

Presenting Author: Damir Huremovic, MD

Co-Authors: Guitelle St. Victor, MD, Shabneet Hira-Brar, MD

Background: Catastrophic earthquake in January 2010 handed a devastating blow to the island nation of Haiti, resulting in over 200.000 dead and over a million of homeless individuals. Effects of this unprecedented natural disaster have resonated strongly in the New York metro area, home to the second-largest Haitian population in the country, which counts about 600.000.

Most Haitians in this region experienced direct immediate family losses and all of them were affected through friends and extended families. Moreover, quite a few of them have witnessed this catastrophe first-hand, as many Haitians who maintain residence in the US frequently visit Haiti and happened to have been there at the time of the earthquake.

Fleeing from the affected area, many Haitians, residents and non-residents alike, sought refuge in New York, often receiving medical care at local hospitals. Treated for various injuries and ailments stemming from the disaster, they often received psychiatric evaluations and consultative care in order to have their emotional wounds and needs assessed and addressed as well.

While these consult requests were well-intentioned, they often represented a challenge for consultants, given a

cultural stigma attached to mental illness, complicated by language barrier and cultural challenges (e.g. well-known 'Haitian pride'), and by limited access to follow up care.

This poster examines such challenges, with recommendations on how to address and overcome them and how to advance cultural competence in order to provide appropriate mental health care in the context of stress-related sequalae.

Various cases, including both adult and child patients, illustrating these issues will be presented in order to facilitate the learning process in this workshop.

36. (T) Is Psychotherapy training still relevant in learning to care for the medically ill? A Survey of Psychosomatic Medicine fellows.

Presenting Author: Filza Hussain, MBBS

Co-Author: Pamela J. Netzel, MD

Purpose: The complex clinical scenarios most often encountered on the consultation-liaison service do not allow for adherence to pharmaceutical reductionism, which may lead to under treatment or mistreatment. The psychosomatic medicine core competencies include that the trainee is able to identify and utilize appropriate psychotherapy (cognitive-behavioral, group, interpersonal, psychodynamic, and supportive) for the medical-surgical-obstetrical patient as well as skillfully manage transference and counter transference issues that arise. There are emerging data to support the successful use of various psychotherapeutic techniques at the bedside with a measurable impact on patient well being however, there is little written about teaching psychotherapy to consultation liaison trainees and even less known about the perception trainees have towards psychotherapy in the current pharmacologically dominated climate.

Methods: A confidential, voluntary and anonymous electronically delivered survey of psychosomatic medicine fellows enrolled in ACGME accredited programs across the United States. The survey addresses 1) the fellows' perception of the relevance of psychotherapy training, 2) the content and structure of their current curriculum, and 3) areas for improvement.

Results: Survey sent to 51 fellows enrolled in 27 different programs. Further results to be compiled upon completion.

Conclusion: Despite the expectation that fellows demonstrate competency in psychotherapy, our current experience and literature search reveals a sporadic attempt at incorporating psychotherapy into the curriculum with mostly informal bedside teaching. We hypothesize that there is a dearth of formal psychotherapy teaching in the context of the medically ill patient and propose revision of the curriculum.

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37. (T) Conversion Disorder vs. Catatonia?

Presenting Author: Marianne Jhee, MD

Co-Authors: Elias Khawam, MD, Kathleen Franco, MD

Introduction: Catatonia is a motor dysregulation syndrome, historically viewed as a form of psychosis. However, physical illness and medications frequently contribute to catatonia.

Background: A 44 year old woman with acute megakaryoblastic leukemia and hepatic graft-versus-host disease was admitted for altered mental status.

Her husband reported that 2 days prior to admission, she became isolative and refused medications. She kept her right hand grasped, pointed her left hand, stared, and clenched her teeth. During admission, she was agitated and only spoke intermittently. Neurological consultation requested psychiatry evaluate for conversion disorder on day 3.

Except for 2 months of SSRI treatment for anxiety after a painful eye biopsy 2 years earlier, the patient had no psychiatric history. MRI of the brain demonstrated volume loss not expected for age and non-specific white matter changes. Liver enzymes and ammonia were elevated. Albumin and white blood cell count were low. A portable EEG on admission was within normal limits; a repeat 2 days later showed generalized triphasic waves and severe diffuse encephalopathy. Medical record revealed Tacrolimus, Cellcept, and Imipenam were started prior to mental status change.

On exam, the patient exhibited mutism, staring, immobility, and waxy flexibility. We suspected catatonia and recommended 24 hour EEG, viral titers, lactulose, and trough blood levels of recently initiated medications. Overnight, staff observed 2 episodes of generalized tonic clonic seizures and de-saturations into the 80s. The EEG recorded 8 generalized tonic-clonic seizures and extensive periods of EEG seizure activity without clinical signs. Keppra was started. Tacrolimus was felt to be the offending agent, although Imipenum may have contributed. The oncology team discontinued both. The patient became more interactive, but complained of auditory hallucinations and mild confusion, which resolved within 3 days. Keppra was tapered off, and she was stable at discharge on Dilantin.

Discussion: Neurological abnormalities such as neoplasms, trauma, infection, seizures, and medications are the most common cause for catatonia due to general medical conditions. Clinicians observed the classic features of catatonia in this patient: mutism, waxy flexibility, negativism, posturing, refusal to take food and medication, autonomic instability, and intermittent eye contact. Imaging studies show patients with white matter disease have greater risk to develop catatonia.

The standard of treatment is benzodiazepines, particularly lorazepam, which can be started at 0.5mg every 4-6 hours but may require dose increases of 2+ mg every 4-6 hours. NMDA antagonists have been used in treatment resistant cases. In severe cases, electroconvulsive therapy may be required.

This case illustrates the importance of identifying signs and considering non-psychiatric etiologies of catatonia. Prompt treatment with anti-epileptics and removal of offending agents brought resolution of symptoms. Attitudes of team members and family changed when the pathology was understood in our patient.

38. (T) An Unusual Case of Dementia

Presenting Author: Marianne Jhee, MD

Co-Author: Kathy Coffman, MD, FAPM

Purpose: Review a case of pellagra in a man with several risk factors, and discuss the relevance in the practice of consult-liaison psychiatry.

Methodology: Case description, literature review.

Results: A 53 year-old man was brought to the Emergency Department in status epilepticus. He was intubated and admitted to the NICU. After extubation, he was confused and agitated, management for which the Consult-Liaison service was consulted.

He had been living in a nursing home for the past 9 months, due to progressive dementia and agitation. He was diagnosed with HIV 10 years ago, current CD count 4. He had a distant history of IV heroin abuse, the presumed route for HIV contraction. He had a history of alcohol dependence and liver cirrhosis, and per wife, stopped drinking a year ago. A left-frontal lobe tumor resection was performed nine years earlier. He was treated in the past for toxoplasmosis. He was diagnosed with seizures one year prior; this was his third generalized tonic clonic seizure. He had been maintained on Depakote and Dilantin, but the Dilantin was discontinued a month earlier.

On exam, the patient was disoriented, yelling, and trying to get out of bed. Diffuse, hyperpigmented excoriations covered his extremities and occurred in a sharply demarcated ring-like distribution around his neck. He scratched his skin continuously until it bled. The soles of hands and feet were spared. Patient was also noted to have diarrhea, of unclear duration. Tests for ova/parasites and C.Difficile were negative.

Due to presence of skin lesions, diarrhea, and dementia, pellagra was suspected. Niacin was started. Abilify was also administered at this time for agitation. Patient's diarrhea, dermatitis, pruritis, and confusion improved. However he still had episodes of agitation. After discussion with family about risks of Haldol in a person with prolonged QTc and dementia, the family requested Haldol be re-started, to which he responded well.

Conclusions: Although pellagra is a fairly rare disorder in the United States, its prompt recognition and treatment is important, as it is highly responsive to therapy. When untreated, there is a high mortality rate. The CL Psychiatrist should be familiar with the signs, symptoms, and treatment of pellagra, and also be aware of patient populations who are at greater risk to develop the disorder. Individuals with predominant psychiatric manifestations and minimal skin involvement are at risk for misdiagnosis.

Risk factors include homelessness, fad diets, HIV,GI malabsorption, cirrhosis, anorexia nervosa, tryptophan metabolism disorders, and drugs which interfere with niacin or tryptophan metabolism. Anticonvulsants have also been implicated.

Pellagra is treated with large oral doses of Niacin (up to 500 mg daily) and by enriching diet with protein. Therapeutic response to niacin establishes diagnosis.

39. (T) Managing and Mediating Non-psychiatrist Countertransference in Consult-Liaison Psychiatry: A Case Study and Resident Perspectives

Presenting Author: Xavier Jimenez, MD

Co-Author: Gregory Thorkelson, MD

Purpose: Consult-Liaison (CL) residents-in-training are often expected to recognize countertransference reactions in non-psychiatrist physicians and consider these when offering clinical recommendations. As a framework for review of the literature, the authors describe a clinical vignette illustrating this facet of CL practice. The case involves a psychotic patient with acute renal failure who, through refusal of care and a tumultuous clinical course, elicited various countertransferential reactions from the primary team which in turn adversely impacted care. A literature review provided historical perspective while existing atttitudes were obtained from psychiary residents currently in training.

Methods: The OVID database was searched using the following keywords: countertransference, consult-liaison, CL, psychosomatic, supervision, ombudsmen. Current trainees in ACGME-accredited psychiatry residency programs were invited to complete an internet-based, twenty-item Likert scale questionairre assessing practices and opinions on countertransference management and training while serving as CL consultants.

Results: Resolution of the clinical case was achieved through collaborative efforts, and CL resident supervision allowed insight into aspects of management. Review of literature reveals the importance of CL psychiatrists'

management of countertransference in non-psychiatrist physicians, but is contradictorily notable for a paucity of guidance in teaching and conveying these skills to CL residents-in-training. Of 162 respondents, 71 percent reported having completed at least two months of rotations on the CL service. Of these, approximately 80 percent identified a need to address countertransference reactions of the primary team, but less than a quarter reported doing so regularly. The motivation for addressing such issues in over half of the respondents was the belief that it would be "clinically beneficial" to the patient, although data also revealed a common fear that this practice could "worsen the relationship between CL consultant and the primary team" in 40 percent of respondents. In regard to training, 95 percent of respondents felt that CL didactics addressing countertransference management would be "clinically beneficial;" three fifths of those surveyed, however, reported "very few" to none of their didactic sessions were dedicated to this aptitude.

Conclusions: The case provided illustrates many of the challenges and shortcomings that a CL resident-in-training may face in the management of non-psychiatrist countertransference. Formal training in this aspect of CL consultation is lacking as evidenced by extant publications. Furthermore, survey data reveals marked discrepancies between trainee perceptions of clinical utility in CL management of countertransference and actual training in this area. The authors discuss possible explanations behind these incongruities and advocate for the establishment of formal guidelines for training CL residents.

40. (T) Catatonia as an Unusual Presentation of Sickle Cell Crisis

Presenting Author: John Rakesh, MD

Co-Author: Marie Tobin, MD

Introduction: Sickle cell disease (SCD) is an inherited disorder caused by homozygosity for the abnormal hemoglobin, Hb S. The abnormal hemoglobin undergoes sickling and produces less malleable red blood cells which give rise to vaso-occlusion and infarction. Vaso-occlusion results in episodes of acute pain and serious organ system complications, known as sickle cell crises. Literature about the psychiatric manifestations of sickle cell crisis is limited to a few case reports. We report a rare case of a patient with SCD who presents with catatonic episodes during sickle cell crises. Catatonia is a neuropsychiatric syndrome of motor dysregulation commonly characterized by mutism, immobility, rigidity, negativism among other behavioral, motor, cognitive, affective, and sometimes autonomic disturbances.

Background: A 28 years old African American female with a history of Sickle cell disease and Schizophrenia was admitted with pain crisis. The patient had catatonic symptoms of mutism, immobility and abnormal posturing which started with the onset of the sickle crisis. Clinically, neurological exam was normal except for rigidity; neuroimaging (MRI) showed parenchymal volume loss but no other abnormalities. An EEG demonstrated diffuse slowing with intermittent delta activity consistent with encephalopathy. Laboratory studies showed evidence of sickle cell crisis including HbS of 47.7 % and elevated LDH of 2217. The catatonic symptoms resolved once the sickle cell crisis resolved.

Discussion: Catatonia can occur in a variety of medical and psychiatric conditions. Catatonia is thought to reflect diffuse brain dysfunction but the exact mechanism of causation is not known. The coincidence of onset and relief of catatonic symptoms with onset and relief of sickle cell crisis suggests that the etiology of catatonia in this patient is closely linked to the pathophysiology of sickle cell crisis. We document the patient's hospital course and the improvement of catatonic symptoms with resolution of the sickle cell crisis. This case demonstrates the importance of careful evaluation and treatment of medical causes in patients with catatonia even if they have a co morbid psychiatric illness.

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41. (T) Cardiometabolic Challenges in People with Severe and Persistent Mental Illness: Developing a monitoring and intervention tool to maximize health

Presenting Author: Laura Kent, MD

Co-Authors: Gregory Miller, MD, Christina Mangurian, MD, Hailing Li, PhD, Susan Essock, PhD, Lloyd Sederer, MD

Goal: To determine the degree of metabolic abnormality in people with severe and persistent mental illness in the state of New York, and after assessing the degree of abnormality, to design and implement interventions to improve health.

Objective: To measure several health indicators related to cardiometabolic risk in people with severe and persistent mental illness who are treated in New York State psychiatric inpatient and outpatient facilities.

Methods: We implemented a monitoring tool for all patients in New York state-run inpatient and outpatient clinics. The monitoring tool is designed to measure weight (BMI), cholesterol, and fasting glucose/HbA1C in inpatients and weight (BMI), blood pressure, and smoking status in outpatients with severe and persistent mental illness, many of whom are on anti-psychotic medications. This study extracted data routinely entered into the Office of Mental Health electronic record. The data was collected and organized so that we could measure the prevalence of cardiometabolic abnormalities in this high-risk population.

Results: We found (preliminary results) that a significant percentage of New York state inpatients have obesity and an abnormally elevated fasting glucose, but lower cholesterol than expected. Outpatients were found to

have significantly elevated BMIs, a high rate of smoking, but lower blood pressure than expected. In the outpatient population approximately 20% of patients have moderate to severe hypertension, 80% of patients measured are either overweight or obese, and 60% of patients smoke cigarettes. Other interesting findings include a breakdown of data uptake at clinics within each mental health facility, which serves to highlight differences in the degree of uptake and variation in systematizing of the uptake process.

Conclusion: Given the evidence for metabolic abnormalities in people with severe and persistent mental illness in New York State both inpatient and outpatient, many of whom are taking anti-psychotic medications, it is important to consider to what degree these medications are contributing to metabolic abnormalities. Further questions need to be explored, for example, compared to the national average, these individuals have low rates of elevated cholesterol, despite many of them taking medications known to elevate cholesterol. Ultimately these data will be used to design, implement and study the appropriate interventions.

42. (T) The Use of Psychotropic Medication in Non-Psychiatric Settings: A Review

Presenting Author: Bhanuprakash Kolla, MD

Co-Author: J. Michael Bostwick, MD, FAPM

Introduction: Following the serendipitous discovery of psychiatric uses for chlorpromazine and iproniazid medications were developed with specific psychiatric indications in mind. However psychiatric medications have been used by various medical specialties for non psychiatric illnesses. These prescription practices are common and the non psychiatric indications for psychotropic medication are growing.

Goal: To compile a list of non psychiatric uses of psychotropic medication.

Methods: We have compiled a list of non psychiatric uses of psychotropic medication by contacting physicians from other specialties and inquiring about their use of non psychotropics. We also searched all non psychiatric therapeutic indications for psychotropic medications in Drugdex®, Micromedex® and the British National Formulary. Where doses were able to confirmed they are indicated in parenthesis.

Results: Psychiatric medications are very commonly used in a variety of medical settings. Both typical and atypical antipsychotics are most commonly used to treat nausea and vomiting. They are also used to treat hiccups, headaches and porphyrias. SSRIs are used in a wide array of conditions. They are used to treat sexual problems, menopausal symptoms, dizziness, pruritus, headaches, syncope and various kinds of pain. Tricyclics are used in gastrointestinal disorders, pain, pruritus, incontinence and chronic cough. Atypical antidepressants also have a wide array of uses. Benzodiazepines are used to treat chronic hyperventilation, spasticity, REM sleep behavior disorder and bruxism while Lithium is used to treat aplastic anemia, cluster headaches, herpes and SIADH.

Conclusion: Almost all psychiatric medications have non psychiatric uses. These medications are usually used in doses and frequencies which are dissimilar to the usual manner in which they are used in psychiatry. This results in a different side effect and therapeutic profile. Physicians prescribing these medications in this manner must be aware of these differences. Physicians also need to be aware of the differences in their efficacy and side effects when used in this manner.

43. Is a Fulbright in Your Future? Pathway to Becoming an International Educator

Presenting Author: Carol Larroque, MD

Background: The Fulbright Program, America's flagship international exchange program, was established in 1946 under legislation introduced by Senator J. William Fulbright of Arkansas to promote mutual understanding and respect between the people of the United States and people of other countries. It is sponsored by the United States Department of State, Bureau of Educational and Cultural Affairs and provides an opportunity for students,scholars and teachers to exchange ideas and to engage in collaborative projects in 155 countries. The Fulbright Program enables an American professional, along with his/her family, to live in a foreign country and to participate in the teaching/research program in a university abroad.The psychiatrist who engages in consultation/liasion work must interact, teach and work collaboratively with a multitude of other professionals. This background and experience makes the Consultation/Liaison Psychiatrist an ideal candidate for the Fulbright Scholar Program.

Purpose: The purpose of this workshop is to provide information regarding the various Fulbright programs that are available and to provide insight into the Fulbright experience.

Method: The workshop will be conducted by 2009-2010 U.S. Fulbright Scholar, Carol M. Larroque, MD of the University of New Mexico. Dr. Larroque has just completed 7 months working as a Fulbright Teacher/Research Scholar at Gulu University School of Medicine,Uganda. She will provide information about each of the Fulbright exchange programs. She will discuss in detail the application process; the importance of an "invitation" from the host institution; communication with the Council for International Exchange of Scholars (C.I.E.S.); the selection process and it's timeline and financial compensation. The workshop will be practical in nature and designed to encourage questions from participants who at any point in their career might consider doing international work as a psychiatrist.

In addition, the poster will address working in a developing country with special emphasis on the countries of Africa. Tips on how to prepare and how to acclimatize to a new academic, physical and cultural environment will be open for discussion with the participants, as well as information about health and safety. Finally, Dr. Larroque will use illustrations, vignettes and slides from her experience in Uganda to share the challenges and personal development that resulted from her rich and exciting experience as a Fulbright Scholar.

Conclusion: The Fulbright Scholar Program provides a unique opportunity for professionals to live abroad and to collaborate on projects with professionals with similar interests from different parts of the world. The Consultation/ Liaison Psychiatrist is especially well suited to participate in the Fulbright Program and this workshop will impart first hand knowlege about the Fulbright Program and how to be a part of it.

44. (T) Psychiatric Comorbidity at an Academic Otolaryngology Clinic

Presenting Author: Kimberly Lavigne, MD

Co-Authors: Michael Walsh, MD, Erich Conrad, MD

Purpose: Patients seeking medical treatment at an otorhinolaryngology clinic present with a broad spectrum of head and neck pathology from benign illness to disease that is life-threatening. Their condition may be curable with minimal intervention or it may require disfiguring and drastic surgical intervention. Often patients are diagnosed with a chronic condition that has already had significant impact on their life or has the potential to do so in the future. These patients may have a variety of preexisting comorbid psychiatric disorders such as depression, anxiety, or substance abuse disorders that may have the potential to interfere with treatment and prevent an optimal outcome (1, 2). Necessary figure altering surgical intervention can lead to social anxiety, generalized anxiety, and depression. The purpose of the proposed study is to assess the comorbid psychiatric disorders present in an academic otolaryngology clinic and determine the need for collaborative psychiatric consultation services.

Methods: This was a one month study in which patients at an academic otolaryngology clinic were randomly recruited to participate in a series of surveys. Patients, age 18 and older, who were seeking care for any reason at the clinic, and who consented verbally, were assessed for the presence of depression symptoms utilizing the Patient Health Questionaire (PHQ-9), the presence of anxiety symptoms utilizing the Generalized Anxiety Disorder Scale (GAD-7), the presence of alcohol abuse symptoms utilizing the Alcohol Use Disorder Identification Test (AUDIT), and the presence of psychological distress and behavioral dysfunction utilizing the Derriford Appearance Scale (DAS-24). Data regarding substance abuse history was also collected.

Results: Descriptive and demographic data was obtained in 48 otolaryngology patients who agreed to participate. Analysis revealed elevated levels of depressive symptoms measured with the PHQ-9 mean 12.4 (SD = 7.0), and higher than expected anxiety symptoms measured with the GAD-7 mean 9.7 (SD = 6.1). Elevated AUDIT mean 5.5 (SD = 8.4) and DAS-24 mean 46.3 (SD = 7.0) scores were also found in this clinic population.

Conclusions: Elevated levels of depression and anxiety symptoms, substance abuse disorders, and distress associated with change in appearance were found in the otolaryngology clinic, which supports and highlights the possible utility of imbedding psychiatric consultation services into this type of clinic.

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45. (T) Light Therapy: Beyond Seasonal Affective Disorder

Presenting Author: Elinor Lee, MD

Co-Author: Christopher White, MD

Purpose: Originally, phototherapy research focused on seasonal affective disorder. As the biological processes involved are revealed, initiatives have been taken to expand light therapy to other psychiatric conditions. Light therapy resets the biologic clock. Retinal light-sensitive receptors convert light into neural impulses that transmit to the suprachiasmatic nucleus (SCN) and lead to the inhibition of melatonin secretion from the pineal gland. This poster represents a summary of the current applications of phototherapy with which a consult psychiatrist should be familiar.

Methods: An extensive PubMed literature search was done with search terms *phototherapy*, *light therapy*, *chronotherapeutics*, *psychiatry*, and *mood disorders*. A total of 171 articles dealing with phototherapy were reviewed and categorized according to indication/disease process.

Results: Light therapy has been studied in myriad disorders; however, its primary utilization has been in sleep, cognitive, and mood disorders. Although initially restricted to seasonal affective disorder, the use of light therapy has been extended to nonseasonal depressions (such as premenstrual dysphoric disorder), refractory unipolar depression, bipolar depression, and antepartum depression. An appeal of light therapy is its rapid antidepressant effect. In addition to mood disorders, phototherapy has been studied in ADHD, bulimia nervosa, dementia, Parkinson's disease, and insomnia. (1, 3). Phototherapy has been used to replace or complement the medication regimen for each of these conditions.
Side effects of phototherapy include agitation, headache, nausea, decreased sleep, dry mouth, headache, weakness, and fatigue; however, many of these can be obviated by decreasing the light dose or increasing the distance between the patient and light source. It provides patients who refuse, resist, or cannot tolerate medication another option to treat their disorders. Light therapy also has a quicker onset of action compared to most medications.

Conclusions: Despite the increased interest in phototherapy, additional research needs to be done to optimize parameters such as timing, intensity, and duration of light therapy as well as to evaluate long-term efficacy and safety in these neuropsychiatric disorders. Within the limitations of existing research, phototherapy remains a viable tool in the arsenal of psychosomatic practitioners.

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46. (T) Development of a Proposal for a Consultation-Liaison/Psychosomatic Outpatient Clinic at a Tertiary Care Hospital

Presenting Author: Maude Lemieux, MD

Co-Authors: Annette Granich, MD, Micheline Khouzam

Purpose: This poster aims to report on the process of developing a proposal for an outpatient CL/Psychosomatic clinic in a Canadian tertiary care hospital setting.

Methods: An interdisciplinary task force consisting of two CL psychiatrists, an epidemiologist, a psychologist, a clinical nurse specialist, and a CL Fellow was created. Their activities in this endeavour included a literature review, consultation with a similar extant CL/Psychosomatic outpatient service in the province, presentations to the CL service team for input and approval, writing of the proposal, and finally submission of the project. The challenging and facilitating elements in the process of developing the proposal were discussed.

Results: The outcome of this initiative was the creation of a proposal for the Consultation-Liaison Outpatient Clinic (CLOC), which was submitted to the Mental Health Mission of the institution. A detailed flowchart was designed that highlighted the interdisciplinary nature of the clinic, as well as its focus on the complex medically-ill patient population and on the importance of using evidence-based, multifaceted outcome measures. Essential elements in the process of creating the proposal included an interdisciplinary task force, input by all members of the CL/Psychosomatic team and compelling external factors. Since the clinic is intended to function within the Canadian health care system, economic factors are not addressed in this poster presentation.

Conclusion: There is a compelling need for outpatient CL/Psychosomatic psychiatry clinics in the management of care of medically-ill patients in the current organization of health care. Such clinics should focus on complex “multimorbid” patients, be interdisciplinary in nature, be driven by evidence-based principles and include multifaceted outcome measures. Additional evidence, especially through qualitative research, is necessary to further validate the benefits of CL/Psychosomatic outpatient clinics on psychiatric functioning, quality of life, health care utilization, and caregiver burden.

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47. (T) Delusional infestation in a Hmong liver transplant patient

Presenting Author: Matthew Lilly, MD

Co-Authors: Maria Lapid, MD, Sheila Jowsey, MD, FAPM

Background: Delusional infestation (DI) has been described among Hmong refugees in Minnesota, which can lead to increased morbidity and health care costs if not identified and treated early. DI, more commonly known by the less global term delusional parasitosis (DP), is an infrequent psychotic disorder characterized by a rigid belief against all medical evidence of infestation and the subjective experience of abnormal sensations on the skin. Primary DI typically has an insidious onset and chronic course, is most prevalent in females in mid-to-late age, and is frequently associated with social isolation. Secondary causes of DI include depression, schizophrenia, intoxication, and dementia. Morgellons disease, a clinically similar but medically vague condition, is gaining public popularity, leading to diagnostic confusion among clinicians seeing patients with histories compatible with DI. Varying forms of self-treatment have been described, typically involving the application of a medical substance to the skin, but also include self-mutilating behavior and ingestion of unorthodox or herbal medications.

We present a case of a 40-year old Hmong female immigrant who presented with fulminant hepatic failure and hepatic encephalopathy and required emergent deceased donor liver transplantation. During hospitalization, the history emerged that the patient had been experiencing distressing burning paresthesias and crawling sensations under her skin for years, and was self-treating with unknown herbal remedies which likely resulted in hepatic failure. Concurrent symptoms of depression complicated the diagnosis, as did cultural differences and language barrier. We discuss the complex biological, psychological, social, and cultural issues experienced in this case, and describe practical clinical guidelines in the evaluation and management of this individual.

48. The Use of Dopaminergic Agents in the Management of Severe Catatonia

Presenting Author: Sermsak Lolak, MD

Co-Authors: Christina Khan, MD, José Maldonado, MD, FAPM

Background: The differential diagnosis of catatonia includes a number of medical and neuropsychiatric illnesses that may make diagnosis and treatment challenging. There have been few controlled studies of the treatment of catatonia, ranging from the use of benzodiazepine agents to ECT. Most published articles of successful treatment have comprised principally of case reports. It has been theorized that catatonia and neuroleptic malignant syndrome are clinical entities that represent an idiosyncratic response to acute dopamine blockade. This has led to the proposed treatment strategy of dopaminergic stimulation with pre- and post-synaptic agents.

Objective: The authors review the literature regarding dopaminergic stimulation in catatonia and report on a case of catatonia in a patient with schizophrenia complicated by anoxic brain injury.

Method: The authors describe the patient with a long standing history of schizophrenia who was found unresponsive due to unknown causes. Physical evidence suggested the patient's altered mental status on presentation was the result of a suicide attempt by asphyxiation resulting in anoxic brain injury. After initial management of the acute presentation, the patient exhibited a spastic catatonic posturing characterized by unresponsiveness, active resistance to passive motion, increased muscle tone, and torticollis. Treatment of this patient's catatonic state proceeded according to evolution of his working diagnosis. After ruling out identifiable neuropathological etiology of his catatonia, the patient was treated with subsequent trials of lorazepam, carbidopa/levodopa, dantrolene and amantadine, with no response in mental status or physical exam. Ultimately the patient experienced a dramatic response to dopaminergic stimulation with bromocriptine.

Results: The patient showed a marked response to bromocriptine when compared with the other agents.

Discussion: Bromocriptine may be an effective agent in the treatment of catatonia complicated by anoxic brain injury. The role of anoxic brain injury in the pathophysiology of catatonia is unclear. Interestingly, this patient began to exhibit increased psychotic symptoms at higher doses of bromocriptine, suggesting a need for delicate balance in using dopaminergic agents to treat catatonia while avoiding potential aggravation of psychosis.

49. Reduced White Matter Diffusivity and Decreased Cortical Thickness in Left Frontotemporal Regions in Patients with Bipolar II Disorder: a Combined Diffusion Tensor Imaging and Morphometric Study

Presenting Author: Ulrik Fredrik Malt, MD, FAPM

Co-Authors: Lars T. Westly, PhD, Erlend Bøen, MD, Frederic Courivaud, PhD, Ole A. Andreassen, MD, Anders Fjell, PhD, Torbjørn Elvsåshagen, MD

Background: Bipolar II disorders are frequently seen in C-L settings, often with medical unexplained somatic symptoms as the reason for referral. But our knowledge of the neurobiology of Bipolar II disorder is far from sufficient. Such knowledge is needed to improve treatment options. Two of the important but unanswered questions are: "What is the brain's white matter orientation and integrity in bipolar II disorders?" and "Is the cortical thickness of the brain in bipolar II patients reduced?" Deviance from normal in those parameters has implications both for the symptomatology of the disorder and cognitive function. Studies applying Diffusion Tensor Imaging only, or assessment of morphometry only, have yielded conflicting results in bipolar I disorders. Few neuroimaging studies have focused on bipolar II disorder. To our best knowledge, DTI and morphometry have not been combined in studies of psychiatric disorders at all.

Purpose: The aims of this study were 1) to assess white matter orientation and integrity using DTI, 2) to measure cortical thickness with morphometry and 3) to compare DTI and morphometry findings, in patients with bipolar II disorder.

Methods: Applying a cross-sectional design, our department studied 25 patients (mean age=34.2; 16 females) with bipolar II disorder recruited from outpatient clinics in the Oslo area. 25 healthy controls (mean age=33.7; 16 females) matched for age, sex and education, were selected from a larger pool of healthy controls. Clinical assessments included MINI-neuropsychiatric interview, Montgomery Åsberg Depression Rating Scale, Inventory of Depressive Symptoms, Young's Mania Rating Scale, and Angst's Hypomania Checklist. MRI: T1 (2 MP-RAGE) and DTI (64 diffusion sensitized gradient directions) images were obtained on a Philips 3T Imaging system (R2.5.3). DTI analyses: Image analyses and tensor calculations were done using FSL (www.fmrib.ox.ac.uk/fsl). Morphometry: All datasets were processed and analysed with Freesurfer 4.5.0.

Results: Patients with bipolar II disorder had reduced longitudinal diffusivity in left frontotemporal white matter. Specifically, longitudinal diffusivity was reduced in left uncinate fasciculus, left parahippocampal cingulum bundle, left anterior thalamic radiation and in corpus callosum in the patient group. Furthermore, patients had reduced cortical thickness in the left superior frontalgyrus (FDR-corrected, P < 0,01). Cortical thickness was also reduced in the left rostral anterior cingulate in patients, however, this reduction did not survive FDR-correction.

Conclusion: By using two complementary methods (DTI and morphometry), this study found left-sided reduced longitudinal diffusivity in frontotemporal white matter and reduced thickness in corresponding cortical areas in patients with bipolar II disorder. The white and grey matter regions identified in this study are implicated in emotion regulation suggesting that these abnormalities may play important roles in the pathophysiology and thus the clinical features of bipolar II disorder.

50. Predictors of seeing a physician among a high risk population

Presenting Author: Cheryl McCullumsmith, MD, PhD

Co-Author: Karen Cropsey, MD

Patients with mental illness or substance dependence commonly have untreated medical co-morbidities and may lack access to regular medical treatment. We examined factors associated with receiving physician care during the past two years among individuals at high risk of lack of access to care, high rates of psychiatric illness, and substance dependence. This data was collected from 2002-2007 among 18,900 consecutive semi-structured intake interviews for TASC (treatment alternatives to street crime), a jail diversion program, in a metropolitan Southern city. Initial associations were examined through chi-square or t-tests, as appropriate, and logistic regression for the final model. Overall, 62.9% of the sample reported having seen a physician in the past 2 years. Reliability checks were consistent, with 84.8 % of those hospitalized for a physical reason, and 91.9 % of those taking medications for physical reasons also reporting seeing a physician in past 2 years. Unadjusted analyses demonstrated that 80.3% of white women, 72% of black women, 67.2 % of white men and only 54.2 % of black men in the sample had seen a physician in past 2 years. While being HIV+ was associated with greater chance of having seen a physician, only 77.1% of those 258 HIV+ individuals in the sample had done so. Other variables that increased the likelihood of seeing a physician in the past 2 years included increasing age, being married or ever married, higher educational status, being disabled or unemployed, having government or private insurance, receiving counseling for depression, hallucinations, being out of control when not under the influence of substances, physical, verbal or sexual abuse, diagnoses of alcohol, cocaine, opiate, amphetamine, or sedative/hypnotic dependence. Marijuana dependence was associated with no physician contact over the past 2 years. Adjusted analyses with logistic regression found predictors of seeing a physician in the past 2 years included: increasing age, being a white female, black female or white male (ie not a black male); government insurance, opiate dependence, sedative dependence, history of suicidal ideation without attempts, feeling out of control, counseling for depression, history of physical or sexual abuse, and being HIV+. Predictors of not having seen a physician in the past 2 years included: cocaine dependence and being uninsured. This data suggests some specific patient populations especially black men and cocaine dependent individuals underutilize medical services while other populations, such as opiate and sedative dependent individuals have been able to access medical care. Specific interventions need to be crafted to engage high risk low utilizers of medical care into the health care system.

51. Use of a limited visit clinic to provide acute follow-up for patients with psychiatric needs presenting to an urban emergency room

Presenting Author: Cheryl McCullumsmith, MD, PhD

Co-Authors: Nasima Amin, MD, Steve Nasiatka

Background: The Transitional Psychiatry Clinic (TPC) was established in a partnership between UAB Department of Psychiatry and Birmingham Health Care in September 2009. A tremendous need for outpatient psychiatry resources in the community contributed to backlogs of patients in the emergency room at UAB. In the Birmingham Alabama area, the wait for initial appointments at community mental health centers is often 3 months. Furthermore, patients in need of psychiatric care but without serious mental illness or insurance often have no place to get care other than the emergency room. The TPC developed as a partnership between UAB and Birmingham Health Care (BHC), an organization with a mission to serve the homeless and un- or underinsured. BHC had a facility with staff and resources, but were unable to hire a psychiatrist, due to lack of availability. In TPC, a UAB psychiatrist goes to BHC one half-day per week and also supervises a full time psychiatric nurse practitioner at BHC. Patients are referred directly to the BHC psychiatrist by the psychiatrist in the emergency room who has initiated treatment. At the TPC, there are no prescriptions of benzodiazepines, stimulants or opioids. Patients receive 1 to 6 free appointments and social services set up appropriate long term psychiatric care.

In the first six months of TPC, 95 patients received initial appointments with 51% (48) show rate. TPC has impacted the length of stay for psychiatry patients in the emergency room. For the eleven months prior to the establishment of the TPC (October 2008 through August 2009), the average length of stay in the emergency room for all patients with a psychiatry consult was 14.59 hours, which dropped to 12.28 hours in the six months after the initiation of the TPC (September 2009 through January 2010). Because consults in psychiatry can differ month to month, we also compared only similar time periods in two consecutive years. From October through January, the average length of stay was 13.81 hours before TPC (2008-09) dropping to 12.28 hours after TPC. These drops in length of stay remain after normalization for number of patients. This drop in length of stay was even more dramatic for those patients admitted to psychiatry, from 19.38 hours for the 11 months prior to TPC to 15.65 hours after TPC.

The Transitional Psychiatry Clinic embodies a new approach to a marginalized patient population. This collaboration between academic psychiatrists and a community medical clinic for the homeless results in better patients care and reduced pressure on emergency room resources. We hope to expand the Transitional Psychiatry Clinic scope in the

future, so that we can prevent patients from reaching the crisis point of coming to the emergency room for psychiatric care.

52. Non-Cardiac Chest Pain: Psychopathology, Pathophysiology and Effects of Treatment

Presenting Author: Edwin Meresh, MD, MPH

Co-Authors: Angelos Halaris, MD, PhD, John Piletz, PhD, Erin Tobin, Nathan Ontrop, Kimberly Schreiber

Rationale: Non-Cardiac Chest Pain (NCCP) is defined as persistent angina-like chest pain with no evidence of cardiac impairment after a reasonable cardiac evaluation, costing over $10 billion annually. Unexplained chest pain is often co-morbid with anxiety, depression and somatoform disorders[1]. There appears to be a two-fold elevation in the relative risk of adverse cardiac events for NCCP patients. Previous studies on the NCCP patient population have identified endothelial dysfunction[2]. NCCP treatment studies to date have focused on pain perception. We are conducting an open label pilot study that quantifies pain perception, somatosensory amplification, depression, anxiety, inflammation and arterial stiffness in patients with NCCP before and after treatment with escitalopram for 12 weeks, relative to normal controls.

Study Design: Patients with persistent chest pain and normal stress test are included in the study. The screening assessment (visit 1) included Hamilton Rating Scale for Depression (HAM-D), Hamilton Rating Scale for Anxiety (HAM-A), Somatosensory Amplification Scale (SAS), McGill Pain Questionnaire (MPQ), and 62 item Illness Behavior Questionnaire (IBQ). Baseline assessment (visit 2) included blood biomarkers and pulse wave analysis (PWA) measuring aortic augmentation index (AIx). After baseline assessment, subjects received escitalopram and were reassessed at weeks 2, 4, 8, and 12. Escitalopram blood levels were measured at specified visits. Subjects completed HAM-D, HAM-A and MPQ at weeks 2, 4, 8 and 12, and SAS and IBQ at week 12. Subjects underwent PWA at weeks 2, 4, 8 and 12 (higher the score of AIx, higher the arterial stiffness). Blood draw for biomarkers was done at week 12.

Preliminary Results: In the NCCP group (n=4), mean baseline SAS score: 30.75, MPQ- McGill Pain Rating Index (PRI): 28.75, Visual Analog Scale (VAS): 61.8, Present Pain Intensity (PPI): 1.75, IBQ: 22.5, AIx: 18.5. HAM-D: 16 , HAM-A : 27. Post treatment week 12 (n=3) SAS: 26, MPQ-PRI: 7.33, VAS: 18.33, PPI: 0.67, IBQ: 19.67, AIx: 20.50, HAM-D: 5, HAM-A: 6. Statistical analysis will be presented.

Conclusion: This pilot study indicates that patients with NCCP have increased level of pain perception, somatosensory amplification, depression, anxiety and arterial stiffness. 12 weeks escitalopram treatment decreased pain perception, depression and anxiety, but somatosensory amplification and arterial stiffness remained elevated. Studies are needed to see if somatosensory amplification and arterial stiffness in depressed and anxious NCCP patients will respond to long-term antidepressant treatment.

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53. The implementation of Dignity Therapy in a community-based hospice setting

Presenting Author: Scott Irwin, MD

Co-Author: Lori Montross, MD

Background: Dignity therapy is an empirically-supported, individualized psychotherapy designed for adults at the end of life. It is a brief treatment, being performed in approximately three sessions over the course of one week. The first session involves the completion of an interview at the patient's bedside. This interview focuses on allowing patients to share their thoughts, feelings and wishes as they deem important prior to their death, and is digitally recorded then transcribed. The second session then allows for the transcribed document to be read back to the patient in its entirety. This session is designed to serve as an emotional reminder of the patient's most cherished memories and verifies that their history has been witnessed and recorded according to their wishes. It is also designed to enhance autonomy as the patient is encouraged to make any and all edits that are necessary. At the end of this session, the patient and therapist work to create an overall summary for the life story, as well as a title. The third and final session is conducted after the patients' edits have been completed. In this session a hard-copy of the "legacy" document is bound and presented to the patient. In this format, the life story can then be bequeathed to desired loved ones and family members with the intention of enhancing the patients' sense of personhood, generativity, legacy, and dignity. Dignity Therapy has been recently studied in a randomized controlled trial, but has yet to be evaluated for its feasibility in a "real-world" clinical setting.

Method and Results: The implementation and feasibility of this novel clinical service in a community-based setting is described for the first 25 patients. The results from these cases demonstrate: 1) the demographics of those patients able to complete the treatment and the corresponding attrition rates, 2) the costs of treatment provision (e.g., clinician time spent, cost of transcripts), 3) referral processes, 4) ethical considerations, and 5) ratings of treatment satisfaction among patients who completed the protocol as well as ten multidisciplinary hospice staff who participated in the project. Preliminary results indicate the treatment is feasible, cost-effective, and well received by all constituents.

Summary: This study describes the initial process of implementing Dignity Therapy as a clinical service. The results are provided in order to educate others about this

empirically-supported psychotherapeutic approach to end of life care, as well as to offer lessons learned when testing its feasibility in a community-based setting.

54. Usefulness of Eye Movement Desensitization and Reprocessing (EMDR) for psychological nausea, vomiting and learned food aversion experienced by cancer patients receiving repeated chemotherapy: a case series study

Presenting Author: Tomohiro Nakaguchi, MD

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Introduction: Some cancer patients who are treated with antineoplastic agents develop psychological nausea and vomiting. First of all, anticipatory nausea and vomiting (ANV) is well known as a psychogenic symptom representing learned response to chemotherapy treatments. Similarly, the role of classical conditioning may also be involved in post chemotherapy nausea and vomiting (PNV). Another chemotherapy-related adverse events developing via conditioning processes is learned food aversion (LFA). Some cancer patients receiving emetogenic chemotherapy develop LFA to dietary items which they were able to consume before chemotherapy. All these symptoms have a significant impact on quality of life of cancer patients, and threaten treatment adherence. It is suggested that several behavioral interventions are effective for these symptoms, but the standard therapy is not yet established.

Objective: The authors present 2 cases for whom EMDR was useful for treating psychological nausea, vomiting and LFA.

Methods: A case series study. We obtained oral consent from each patient to report his/her case. Several items of personal information were modified in order to preserve anonymity of the patients. Both cases were treated using the standard EMDR protocol.

Case 1: A 45-year-old woman with uterine cancer had been suffering from ANV for more than two years since the first regimen of chemotherapy. Because mental images of chemotherapy induced nausea and vomiting even when she was far removed from treatment, she experienced vomiting 2-3 times per day in addition to persistent nausea in prolonged PNV after the last chemotherapy. She was treated by EMDR with 2 sessions focusing on only the memory in which she experienced nausea and vomiting most intensely during the initial chemotherapy course. After the first session of EMDR, most of nausea and vomiting disappeared, and her appetite recovered rapidly. The score of IES-R (Impact of Event Scale-Revised) and HADS (Hospital Anxiety and Depression Scale) one week after the treatment was largely improved.

Case 2: A 53 year-old woman with malignant lymphoma had been troubled by LFA to protein-rich food such as meat and fish, or some vegetables for six months since the middle of the first regimen of chemotherapy. She was treated by EMDR with 1 session focusing on each image of hateful foods being cooked to feel most unpleasantly. Beginning with a diet immediately after the EMDR treatment, she has been able to eat the target foods of LFA without difficulty.

Both patients maintained their improved conditions during follow up periods of at least 2-3 months.

Conclusion: Our preliminary findings suggest that EMDR may be beneficial in the treatment of nausea, vomiting and food aversion which involve elements of classical conditioning experienced by cancer patients receiving repeated chemotherapy. Further well-designed clinical study is needed to clarify the effect of EMDR on these symptoms.

55. (T) A National Survey of Canadian Psychiatry Residents Regarding Perception of Psychosomatic Medicine as a Subspecialty

Presenting Author: Tuong-Vi Nguyen, MD

Co-Authors: Annette Granich, MD, Sanjeev Sockalingam, MD, Susan Abbey, MD, FAPM, Peter Chan, MD

Background: In 2007, psychiatrists working in the area of Psychosomatic Medicine (PM) submitted an application for subspecialty status to the Royal College of Physicians and Surgeons of Canada. This application was rejected, while a comparable application was accepted by the American Board of Medical Specialties in 2003. This raises many questions concerning the status of Psychosomatic Medicine in Canada. The purpose of this national survey was to assess Canadian residents' perception of Psychosomatic Medicine as a subspecialty.

Methods: The 12-item online questionnaire was sent to psychiatry residents at all 16 Canadian residency programs with the help of the Coordinators of Post-Graduate Education (COPE).

Results: The response rate was 35% -n=199, data collection ongoing. Three programs (Calgary, Dalhousie, Sherbrooke) were excluded because of the inability to reach the COPE representatives from these universities. The majority of residents were interested in various different specialties, with 50% interested in general psychiatry and more than 30% interested in PM, Addictions, Geriatrics, Mood disorders, Psychotic disorders and Psychotherapy. Training in English-speaking universities tended to include supervision by a PM specialists (80%) and exposure to a subspecialty of PM (52%) while training in French-speaking universities tended to include supervision by a PM specialist (80%) and a journal club (52%).

60% of the respondents believed a PM specialist should complete more than 6 months of additional training to be competent and qualified. 68% of the respondents believed PM represented a distinct psychiatric subspecialty, as important as Forensics and Geriatrics. Interestingly, while most subspecialty areas of PM -especially HIV,

neuropsychiatry and perinatal and reproductive psychiatry-were perceived as requiring additional specialized training according to more than 80% of respondents, delirium was believed by 53% of residents as being part of general psychiatric care.

Conclusions: The above results challenge the notion that Psychosomatic Medicine is only a focused area of general psychiatric practice. PM appears to require additional training beyond residency for a psychiatrist to feel competent and qualified. Evaluating resident perception of PM as a subspecialty and the teaching they receive will help establish more consistent guidelines for PM residency training applicable to psychiatry training programs across Canada and the United States.

56. Psychiatric history in living kidney donor candidates: a single-center experience in Japan

Presenting Author: Katsuji Nishimura, MD, PhD

Co-Authors: Sayaka Kobayashi, Takashi Oshimo, MD, Atsuko Inoue, Ryeong-Na Jeong, MD, Maki Matsuki, MD, Jun Ishigooka, MD, PhD

Introduction: According to the present criteria for living organ donors in Japan, psychiatric disorders are a contraindication. Therefore, people with a psychiatric history are suitable as candidates for living organ donation if they have recovered from previous psychiatric disorders. However, little information has been published on the suitability of such candidates.

Objective: To examine the suitability of candidates for living kidney donation who have a psychiatric history.

Methods: The subjects were 308 consecutive candidates for living kidney donation who received a 45-minute comprehensive psychiatric interview in a semi-structured form. The DSM-IV criteria were used to examine the absence or presence of past and present psychiatric disorders. If a candidate was being treated for a psychiatric disorder, the medical information was obtained from the attending physician. “Recovery from psychiatric disorder” was defined as resolution of psychiatric symptoms for 1 year or more and recovery of premorbid psychosocial functions. A candidate’s decision-making ability was determined using the MacArthur Competence Assessment Tool for Treatment (MacCAT-T) as a reference.

Results: Of 308 candidates for living kidney donation, 18 had a psychiatric history (5.8%) (11 females, 7 males; mean age: 54.0±10.0 years [range: 37-71]; relationship with the recipient: 7 parents, 3 siblings, 1 child, and 6 spouses). Of these 18 candidates, 9 had a mood disorder (50%) (4 major depression cases, 3 minor depression cases, and 2 bipolar disorder II cases), 3 had schizophrenia (17%), 2 had an adjustment disorder (11%), 1 had a panic disorder (6%), 1 had an eating disorder (6%), 1 had a somatoform disorder (6%), and 1 had alcohol dependence (6%). At the time of interview, 13 candidates (76%) were being treated and taking psychotropic drugs for their psychiatric disorders. Ten candidates were established as recovered by the aforementioned definition, accompanied by sufficient decision-making abilities.

Conclusion: There are people with a psychiatric history among those who wish to be living kidney donors, and some of them have recovered from psychiatric disorders. Thus, it is difficult to determine that they are unsuitable as donors by “psychiatric history” alone. Since recovery also depends on the type of psychiatric disorder, it is important to evaluate candidates individually while maintaining certain criteria.

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57. Patients’ attitudes and insights toward psychiatric medications on admission to an inpatient behavioral health unit

Presenting Author: Edward Norris, MD, FAPM

Co-Authors: Krina Patel, MD, Julia Correll, Laurence Karper, MD, Mary Ellen O’Connoll, RN, Michael Kaufmann, MD

Purpose: Psychiatric patients’ lack of adherence to medications is an on-going concern among mental health professionals, and a more thorough medication education may be a solution. The patients’ understanding of their illness, medications, and intentions to take their prescribed medication are important factors in medication compliance. This study examined the patients’ attitudes toward psychiatric medication, insight into their illness, and intentions to follow prescribed medication regimen at the time of admission to a psychiatric inpatient unit.

Methodology: Patients admitted to an inpatient behavioral health unit between February 2009 and February 2010 were asked to anonymously participate in this study. Participants completed a self-report survey to provide demographics and were asked, “Do you plan on taking your medication after discharge?” Participants completed the 30-item Drug Attitude Inventory (DAI30), which measures how patients view the use of psychiatric medications and the nature of their experiences on these drugs. Scores range from -30 to +30, with negative scores being associated with non-compliance, and positive scores being associated with compliance. Participants also completed the Birchwood Insight Scale (IS); this scale consists of 3 subscales that measure a patient’s awareness of symptoms, awareness of illness, and perceived need for treatment (each has a range of 0-4, combine to add up to full scale with range of 0-12); higher score indicates better insight.

Results: Overall, 169 surveys were completed. 69% were female with a mean age of 40.1 years. 80% were Caucasian. 91% stated that they planned on taking their medications after discharge. The DAI30 score mean was 6.27 with 58% considered compliant and 40% considered non-compliant. The IS score mean was 8.5 with 44% having good insight into their symptoms, 59% having good insight into their illness, and 82% having good insight into their need for treatment. The IS total (M=8.97 vs. M=7.79, p=.013) and need for treatment subscale score (M=3.58 vs. M=2.90, p=.000) were significantly higher for participants deemed compliant by their DAI30 score. Participants who said they would take their medications had significantly higher DAI30 scores (M=7.5 vs. M=-4.8, p=.003) and significantly higher IS total (M=8.80 vs. M=5.39, p=.000) and subscale scores (need for treatment M=3.45 vs. M=1.77, p=.000, awareness of illness M=2.81 vs. M=1.69, p=.004, awareness of symptoms M=2.55 vs. M=1.92, p=.037).

Conclusions: Though 91% of participants stated they planned on taking their medication after discharge, only 58% had compliant scores on the DAI30. This suggests some ambivalence on the part of the participants. Overall, participants were more insightful regarding their need for treatment than their awareness of symptoms or awareness of illness. Providing participants with more education regarding these topics may increase their overall insight into the need for treatment and increase the likelihood of compliance.

58. Evaluation of an Educational Program on Stigma in Mental Illness presented by a Mental Health Consumer and Advocate

Presenting Author: Edward Norris, MD, FAPM

Co-Authors: Karen Burke, RN, Brooke Katz, RN, Bruce Curry, LCSW, Michael Kaufmann, MD

Purpose: The recovery model refers to collaborative treatment approaches, finding productive roles for consumers, reducing stigma, and subjective experiences of optimism, empowerment, and interpersonal support. It is widely recognized that continuing education for mental health professionals should incorporate emerging knowledge about recovery as an attainable outcome for individuals with severe mental illness. Preliminary evidence suggests that mental health consumers can be used as trainers for mental health professionals. This evaluation assessed the effectiveness of a brief educational program presented by a mental health consumer to decrease stigma and improve attitudes of mental health professionals toward recovery.

Methods: A mental health consumer and advocate presented a 60-minute program on Stigma in Mental Illness at the Department of Psychiatry Grand Rounds at a large community academic hospital. The speaker was a mental health consumer, advocate, and nurse. The presentation consisted of the speaker relaying her experiences as a mental health consumer with focus on the stigma of mental illness and recovery based principles. Attendees completed the 8-item recovery subscale of the Recovery Attitudinal Pre-Post Survey, before and after the presentation. The self-rated survey is designed to assess attitudes related to recovery based principles and practices. Participants are asked to rate their level of agreement on a scale of 1 to 6, with a higher score indicating a more positive attitude toward Recovery.

Results: One hundred and two attendees completed surveys before and after the presentation: 43 therapists/caseworkers (81% female, mean age 42 years with 13 years experience), 34 nurses (91% female, mean age 49 years with 18 years experience), 11 providers (73% female, mean age 40 years with 13 years experience), 7 students (29% female, mean age 22 years), and 7 participants in non-clinical roles (86% female, mean age 51 years). Nurses experienced the most improvement with mean improvement of 2.47 (p=.000) overall on the recovery subscale and statistically significant improvement on four of the eight items. Statistically significant improvement on the recovery subscale was also experienced by therapists/caseworkers (M=1.9, p=.000) and non-clinical staff (M=3.3, p=.028). Students had the lowest subscale total score both before and after the training (p=.002) and did not have statistically significant improvement in the overall subscale score.

Conclusions: A brief educational program presented by a mental health consumer can be effective in improving attitudes of mental health professionals toward recovery. A more in-depth training may be required for students. Attempts to reduce the stigma of mental illness should enhance the acceptance of the recovery principles.

59. Growing organizational capacity to facilitate the streamlining of patients with psychiatric disorders in a community academic health network: an eight year review.

Presenting Author: Edward Norris, MD, FAPM

Co-Authors: Muhamad Rifai, MD, David Burmeister, MD, Laurence Karper, MD, Ralph Primelo, MD, Michael Kaufmann, MD

Background: In this report we present the progression of change and a transformation process the Lehigh Valley Health Network (three hospital system with a total of 900 hundred beds) has undertaken to improve patient flow both from the emergency department (with over 160,000 patient visits and 5000 psychiatric visits) and medical-surgical (med-surg) units to inpatient psychiatric units (total of 2600 admissions per year).

Methods: A change model of behavior was used to involve an ever enlarging group of professional stakeholders. This included med-surg units, the emergency department, and inpatient psychiatry.

Results: Even as volumes for all areas were increasing, the average waiting time of psychiatric patients on medical floors decreased from 10 hours to under 5 hours. The average length of stay on the inpatient psychiatric unit decreased from over 10 days to 8.45 days. The average length of stay for psychiatric patients in the ED's has trended down from over 13 hours to under 10 hours. The total ED length of stay has trended down from 4.8 hours to 3.28 hours.

Conclusions: Using a collaborative change model, we were able to improve psychiatric patient flow across the continuum of an premier academic community hospital.

60. (T) Management of Dextromethorphan-Induced Psychosis in the Emergency Setting: A Review and Case-Based Discussion

Presenting Author: Camille Paglia, MD

Co-Authors: Gregory Thorkelson, MD, Carolina Retamero, MD

Background: Dextromethorphan (DXM), a widely-used, FDA-approved over-the-counter cough suppressant, is an increasingly common drug of abuse, particularly among adolescents and young adults. In supertherapeutic doses, DXM produces euphoric and dissociative effects similar to those associated with ketamine and phencyclidine. At present, DXM is not detectable with the routine urine drug screen (UDS) available to emergency departments.

Objective: We present, as a framework for a review of the literature, the case of a 49-year-old man who presented to a psychiatric emergency room with psychosis resulting from intentional and habitual DXM intoxication: he drank two bottles of Robitussin daily since age 17.

Method: The OVID database was searched using the following keywords: dextromethorphan; DXM; Robitussin ™; Coricidin™ .

Results: DXM intoxication may present with tachycardia, hypertension, hyperthermia, vomiting, diaphoresis, and neurological symptoms such as mydriasis, nystagmus, loss of motor coordination and a distinctive plodding ataxic gait, also known as “zombielike” walking. It may also produce nonspecific psychiatric symptoms such as euphoria, inappropriate laughter, and hallucinosis. In addition, over-the-counter cough formulations frequently contain other pharmacological agents such as pseudoephedrine, chlorpheniramine, and acetaminophen, which may further complicate the clinical picture and present a challenge for the consulting psychiatrist and emergency physician. This is particularly true when dealing with a patient with a negative UDS who is unable to give a clear history. The treatment of patients intoxicated with DXM is primarily supportive, and may be administered in the emergency setting, although in cases of overdose, more aggressive measures may be warranted. Of particular concern is the possibility of DXM-induced serotonin syndrome in patients who are prescribed serotonergic agents.

Conclusion: Consulting psychiatrists need to be aware of the increasing trend of dextromethorphan abuse in child, adolescent and adult populations, and to be able to recognize and treat dextromethorphan-induced psychosis in the emergency setting.

61. (T) Poor Sleep Quality Predicts Postpartum Maternal Depressive Symptoms

Presenting Author: Eliza Park, MD

Co-Author: Robert Stickgold, MD

Background: Women are at increased risk of developing mood disorders during the postpartum period. Changes in sleep have been hypothesized as a modifiable risk factor for the development of postpartum depression, but there are relatively few studies that have objectively measured sleep parameters while assessing postpartum maternal mood, and even fewer that have done so longitudinally. The goal of this study is to prospectively investigate the correlation between wake-sleep cycle variables and postpartum depression using wrist actigraphy and self-report surveys.

Methods: This is a repeated measures, single-center observational study. We recruited 25 healthy first-time mothers during their second or third trimester of pregnancy for this longitudinal study of postpartum sleep and depression. Women with clinically-diagnosed histories of depression (case group) and women without histories of depression (control group) were included. Subjects completed the Psychomotor Vigilance Test, Edinburgh Postnatal Depression Scale, Center for Epidemiologic Studies Depression Scale, and the General Sleep Disturbance Scale, wore wrist activity monitors, and completed daily sleep logs for one week during the third trimester of pregnancy, and again during the 2nd, 6th, 10th and 14th postpartum weeks. Data was scored for periods of wake and sleep and aligned with self-reports of awakenings and infant feedings. Nightly actigraphy data was averaged for each week and correlated with depression scores.

Results: The two groups did not differ significantly in regard to demographic characteristics. In an initial analysis of the first ten participants, 5 out of 6 control subjects and 3 of 4 case subjects showed strong correlations between weekly self-reported sleep disruption and depression scores, explaining 64% of depression score variation in the control group but only 24% in women with histories of depression. Exploratory analyses suggest that self-reported sleep disruption is a better predictor of postpartum depression as measured by depression inventories than more objective measures (TST, WASO, SE)

Conclusions: Data from this study provides additional evidence that poor sleep may predict depression during the postpartum period and that this effect may differ among women with personal histories of affective disorder.

62. (T) Frontotemporal dementia with pro-granulin mutation presenting as progressive apraxic dysgraphia

Presenting Author: Victoria Passov, MD

Co-Authors: Ralitza H. Gavrilova, MD, Edythe Strand, PhD, Jane H. Cerhan, PhD, Keith A. Josephs, MD

Objective: To examine the relationship between progranulin gene mutation and apraxic dysgraphia.

Design: Case report

Setting: Tertiary care medical center

Results: We describe a 49 year old right-handed woman who presented with apraxic dysgraphia that progressed

into the corticobasal syndrome. She had no family history of a neurodegenerative disease. Head MRI and 18F fluorodeoxyglucose PET scan revealed significantly asymmetric findings consistent with corticobasal syndrome. Progranulin gene sequencing identified a four base pair deletion.

Conclusions: Patients presenting with an early apraxic dysgraphia, progressive disease course and asymmetric imaging findings should be considered for progranulin gene testing despite negative family history.

63. (T) Use of Electroconvulsive Therapy for Treatment Resistant Major Depressive Disorder in Pregnant Patients : Case Series

Presenting Author: Victoria Passov, MD

Introduction: Use of electro convulsive therapy (ECT) in pregnancy has been a controversial issue for a while, and the data describing cases where ECT was utilized, is limited.

Objectives/Aims: The study describes two cases with reference to presenting psychopathology, course of treatment, and previous strategies used. This is followed by a discussion of risks and benefits of ECT use in pregnancy as well as monitoring measures which help prevent negative outcome.

Methods: Two cases of treatment resistant depression during pregnancy are described. The details about treatment approaches used prior to consideration of ECT are provided.

Results: ECT was considered as a last resort and both patients decided to undergo treatment. By the end of the intensive treatment course improvement of symptoms was noticed in both patients to a greater to lesser degree.

Conclusions: In cases when medication trials alone or even in combination with psychotherapy do not result in significant improvement of depressive symptoms, ECT may be used to maximize positive treatment result in pregnant population. It is an effective treatment for severe mental illness, however, proper monitoring system needs to be in place to minimize negative outcome for fetus and mother.

64. (T) The Relationship Between Psychiatric Co-morbidity and Length of Hospital Stay in Liver Transplant Patients.

Presenting Author: Victoria Passov, MD

Co-Authors: Sheila G. Jowsey, MD, FAPM, Maria I. Lapid, MD, M. Caroline Burton, MD, Terry D. Schneekloth, MD, James R. Rundell, MD, FAPM

Objective: The Mayo Clinic Rochester Transplant Center performs nearly 400 transplant surgeries annually, including approximately 100 liver transplants. Up to fifty percent of all patients presenting for liver transplant have history of alcohol dependence or abuse, twenty percent of these patients undergo transplantation, with post transplant relapse rate of about ten percent at Mayo Rochester. Other populations include: patients suffering from amyloid, multiple transplant cases, cancer patients, diabetic patients with multi-organ involvement, congenital malformation patients, cystic fibrosis patients, hepatitis C, and elderly patients. While a variety of medical diagnoses in liver transplant patient have been widely explored, there is limited data on psychiatric co-morbidity in these patients, especially related to length of hospital stay. This study examined the relationship between psychiatric diagnoses and length of hospital stay in liver transplant patients.

Methods: A retrospective chart review of 140 liver transplant patients who received their care at Mayo Medical Center in 2006 and 2007 was conducted. Demographic and clinical information was collected including primary medical as well as psychiatric diagnoses. The relationship between the presence of the psychiatric diagnoses and prolonged hospital stay was identified.

Results: There were 26 patients with psychiatric co-morbidities of which 16 had depression, 1 had bipolar disorder, 5 had anxiety/panic, and 4 had adjustment disorder. These patients had statistically significant ($p=0.008$) prolonged hospital stay (23 days on average) when compared to patients with no psychiatric diagnosis ($N=68$) whose average stay was 15 days. There was also a slight increase in total number of days spent in the hospital in patients with history of alcohol abuse and dependence ($N=46$, 16 days on average). This association, however, was not statistically significant.

Conclusions: These results suggest that there is a strong association between the presence of psychiatric diagnosis and length of hospital stay. Taking measures to improve screening and treatment of patients with psychiatric comorbidities prior to surgery, as well as intensifying psychiatric or psychological follow up in the immediate postoperative period may decrease the number of hospital days. It may also reduce the likelihood of opportunistic infections or other iatrogenic conditions that often complicate prolonged hospitalizations.

65. (T) Analysis of Transfers from a Medical Psychiatry Inpatient Unit to a Medical-Surgical Unit Within 48 hrs of Admission, A Follow Up Study

Presenting Author: Victoria Passov, MD

Co-Authors: Christopher L. Sola, DO , FAPM, James R. Rundell, MD, FAPM

Background: Medical Psychiatry Units (MPUs), including the inpatient MPU at Mayo Clinic, Rochester Minnesota, are able to care for patients with a higher medical-surgical acuity than general psychiatry units. Clinical screening of patients being presented for admission to the MPU is important to ensure safe, timely, and effective treatment. If an admitted patient's condition exceeds MPU clinical capabilities, such patient must be transferred to the appropriate medical or surgical unit. When these transfers occur within 48 hours of admission to the MPU, it often indicates that patient was accepted for admission with a condition that would have been more safely and appropriately managed on a medical

or surgical unit to begin with. Alternatively, the condition could have developed after the admission to the MPU. The initial study examined causes for transfers from Mayo Clinic's Medical Psychiatry Unit (MPU) to medial or surgical units within 48 hours of admission. Screening criteria were developed for determining the suitability of patients for admission to the MPU.

Objectives: This study evaluated the efficiency of the newly established criteria and, based on the results, the authors suggest additional specific screening to further improve the safe delivery of quality care by minimizing inappropriate admissions of patients who are likely to require transfers from MPU to medical-surgical units within 48 hours of admission.

Methods: A retrospective review of 740 medical records of consecutive admissions to the MPU was conducted. The charts of patients transferred to a higher level of medical or surgical care within 48 hours of admission were evaluated to categorize the reasons for transfers and assess for preventability.

Results: 27 out of 740 (3.6%) patients required transfer to a medical-surgical unit and only 7.4% of them for pre-existing reasons. This compares to 30 of 1,583 patients (1.9%) with 33.3% of them for pre-existing reasons in the initial study. Reasons for transfer included pulmonary, cardiovascular, gastrointestinal, neurological, and other etiologies. Most transfers (81.5%) were not foreseeable because symptom onset was after admission. This number corresponds to 66.6% of unforeseeable transfers in the initial study.

Conclusions: The screening criteria helped prevent some inappropriate transfers, as the rate of preventable transfers dropped from 33.4% to 18.5%. More vigilant screening for pulmonary, cardiovascular, electrolyte and infectious disorders is needed along with specific algorithms for patient screening. The newly suggested criteria and guidelines for better patient triage will help achieve this goal and further minimize negative patient outcomes.

66. Giving a Voice to Anxiety: Functional Dysphonia in a Female Veteran

Presenting Author: Candace Lyn Perry, MD

Objective: To discuss a case of psychogenic dysphonia in 45 year old female, review relevant literature, and discuss the role of consult liaison psychiatrists in the treatment of individuals suffering from this disorder.

Method: Case report

Introduction: Loss or changes of voice in individuals who lack structural or neurological pathology consistent with organic causes of dysphonia and who are experiencing substantial psychosocial stressors has been termed psychogenic or functional dysphonia.

Case Report: Ms. F was a 45 year old female with no significant past medical history who presented with a seven day history of difficulty swallowing, coughing, and loss of voice. Flexible laryngoscopy was within normal limits except for hyperfunctional glottis with phonation. Physical examinations by both neurology and otolaryngology were unremarkable. Speech pathology noted distorted speech characterized by prolongations, prosodic disturbances, and articulation errors.

The veteran initially denied presence of any psychiatric symptoms or psychosocial stressors. However over a series of appointments, prominent themes of health-related anxiety and concerns related to abandonment emerged and the veteran acknowledged the relationship between her anxiety that her dysphonia was due to cancer with the deaths of her mother and a close friend. She demonstrated a partial response to sertraline, reporting decreased anxiety and "stronger" voice and agreed for referral for ongoing psychotherapy in addition to continued speech therapy.

Discussion: Diagnosis and treatment of psychogenic or functional dysphonia often occurs in a multidisciplinary setting with involvement of otolaryngologists, speech pathologists, neurologists, and psychiatrists. Psychiatrists must demonstrate a basic understanding of the differences between psychogenic dysphonia and organic dysphonia as well as helping identify and treat underlying psychiatric conditions. Psychiatrists also function as an important liaison among the different specialists to enhance communication with the patient and to diffuse negative countertransference towards these individuals often identified as "difficult patients."

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67. Innovative Practices Workshop; Sponsored by the Business of PM Subcommittee

Presenting Author: Leo Pozuelo, MD, FAPM

Co-Authors: Lawson Wulsin, MD, FAPM, David Clarke, MD, Sarah Rivelli, MD, Harold Goforth,MD, FAPM, Bernardo Ng, MD, Keira Chism, MD, Elisabeth Kunkel, MD, FAPM

Background: The Business of PM Subcommittee proposes this workshop showcasing innovative practices by our membership, defined as new or improved service delivery, innovative product lines or designs, novel educational ventures, or revenue generating endeavors.

Method: APM members where solicited in the months of February and March for abstracts of their innovative practices in psychosomatic medicine.

Submissions were selected by Drs. Leo Pozuelo (Cleveland Clinic) and Lawson Wulsin (University of Cincinnati) using the following criteria: 1) merits of product line, service, or educational venture; 2) design and/or business plan of best practice; 3) outcomes and /or data collection ; 4) value added, improvement over traditional methods, and/or applicability to the membership.

Results: Four abstract presentations were accepted for our Innovative Practices workshop. They are: 1) Stress medicine group appointments by Dr. David Clarke from Portland Oregon. Dr. Clarke will present data on the appointment format as well as its educational content and outcomes in decreasing follow up medical visits. 2) A Computer Physician Order Entry (CPOE) approach to Standardizing Thiamine Usage for the Prevention and Treatment of Wernicke's encephalopathy by Drs. Harold Goforth and Sarah Rivelli from Durham, NC. This team from Duke University will outline the use of CPOE to better target at risk populations on the inpatient CL service. 3) Applying Academic Psychosomatic Medicine in Rural California by Dr. Bernardo Ng from San Diego, California. Dr. Ng will describe his initiative of bridging the gap of mental health services in an underserved community with no impatient psychiatry unit by providing reimbursed CL services at two community hospitals, dialysis units, and skilled nursing facilities. 4) Sound business principles for demonstrating return on investment on CL program support dollars by Drs. Keira Chism and Elisabeth Kunkel, from Philadelphia, PA. This team from Thomas Jefferson University will provides the mechanics of showing value added via collection of Length of Stay, transfers to inpatient psychiatry, 1;1 observation, and CL volume data.

Each presenter will give a 20 minute oral presentation with incorporated short Q and A. Then Drs. Pozuelo and Wulsin will moderate a 25 minute collective panel discussion with interactive audience format. Total Duration of the Workshop will be 2 hours.

Conclusion: The proposed workshop provides a forum for showcasing innovative Psychosomatic Medicine practices that can be adopted by others.

68. (T) Implantable Cardioverter-Defibrillator Related Anxiety: The Tale of Two Patients

Presenting Author: Divy Ravindranath, MD

Co-Authors: Frank Pelosi, MD, Michelle Riba, MD, FAPM

Purpose: Implantable Cardioverter-Defibrillators (ICDs) are the mainstay of treatment for ventricular tachyarrhythmia in vulnerable patients. However, these devices may induce an anxiety disorder in some patients. The present research addresses symptom monitoring and treatment of patients with ICD-related anxiety.

Methods: We present the experience of two patients with AICD-anxiety seen in our Psychiatry-Cardiology integrated clinic.

Results: Patient A is a 74 year old married retired man who received his ICD four years prior to his presentation to the clinic. His anxiety began early in his treatment course and featured fear of the device firing as well as avoidance of activities he thought correlated with device firing. Each device firing event resulted in worsening anxiety and more avoidance. He was referred to the clinic after one such event, already prescribed lorazepam for use as needed. His initial ASI score was 29. Regarding prior psychiatric symptoms, he endorsed avoidance of electrical wiring stemming from being accidentally electrocuted by a cousin during his childhood. He was treated with citalopram. Over the course of 5 months, his symptoms were treated to remission and his benzodiazepines were withdrawn. His final ASI score was 5.

Patient B is an 86 year old widowed veteran who received his ICD two years prior to his presentation to the clinic. His anxiety began after experiencing two shock storms, one of which happened while he was hospitalized. He endorsed fear of the device going off as well as a sensation that the device had gone off when it had not. He also had panic attacks and a desire to avoid places in which he may be trapped. His sleep was troubled by nightmares of the device firing. He felt emotionally numbed. His initial ASI score was 33. Regarding prior psychiatric symptoms, he avoided discussing wartime experiences. He was already prescribed alprazolam three times per day when he presented to the clinic. He was treated with sertraline. Over the course of 4 months, his symptoms were treated to remission and his benzodiazepines were withdrawn. His final ASI score was 13.

Conclusion: ICD-related anxiety has features of both PTSD and Panic Disorder. In these cases, both patients had a predisposition towards anxiety, as is often the case in patients with anxiety disorders. Moreover, a monitoring and treatment strategy for Panic Disorder proved successful.

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69. (T) Reversible Cerebral Vasoconstriction Syndrome and its Association with Antidepressant Medication: Case Report and Literature Review

Presenting Author: Jennifer Richman, MD

Co-Authors: Steven Epstein, MD, FAPM, Maryland Pao, MD, FAPM

Background: Reversible Cerebral Vasoconstriction Syndrome (RCVS) is a rare and under diagnosed syndrome usually characterized by severe "thunderclap" headaches, with or without additional focal neurologic deficits, and constriction of cerebral arteries. RCVS characteristically resolves spontaneously in 1-3 months. Although the

pathophysiology is unknown, sympathomimetic and serotonergic drugs have been implicated including selective serotonergic reuptake inhibitors, drugs of abuse, cold medications and migraine medications.

Case Report: We present the case of a 36-year-old woman with a history of migraine headaches and depression who initially presented with headache, right leg weakness which progressed to bilateral upper and lower extremity weakness. She had been treated with duloxetine, oxymetazoline nasal spray, and acetaminophen/butalbital/caffeine. Cerebral angiogram showed diffuse narrowing and MRI showed diffuse abnormalities of frontal white and gray matter. A brain biopsy did not demonstrate evidence of vasculitis and all labs were within normal limits. The patient's functioning gradually returned to baseline. Two years later she had an additional episode of severe headache and an unprovoked seizure in the setting of citalopram use. CT scan demonstrated a small subarachnoid hemorrhage and repeat angiogram demonstrated diffuse narrowing of the vascular beds which eventually normalized. When seen two years after this episode she was close to her neurologic baseline with the exception of chronic headache, anxiety and problems with executive functioning secondary to her initial stroke.

Discussion: A literature review using Medline from 1950 to 2010 revealed seven case reports or case series involving a total of 23 patients diagnosed with RCVS between 2002 and 2009 who were concurrently taking antidepressant medication. Our patient demonstrated the typical features of headache and focal neurologic deficits with constriction of cerebral arteries which resolved. What makes our case less typical is a recurrence two years later. However, both episodes occurred while the patient was using an SSRI or SNRI. As other case reports have shown, this syndrome can occur in patients taking normal doses of SSRIs and SNRIs, either at the initiation of treatment or after years of therapy. Although RCVS is rare, it may be under diagnosed. It is important for psychiatrists to be aware of the potential link to SSRI or SNRI use. Patients diagnosed with RCVS and with a history of depression will present treatment challenges as it is unclear whether antidepressants other than SSRI and SNRIs will be safe to use in these patients. In conclusion, it is important for PM psychiatrists to be aware of this rare, but serious condition and its association with antidepressant use.

70. (T) Painted Stories of Organ Transplants: A Qualitative Pilot-Study

Presenting Author: Jacynthe Rivest, MD

Co-Authors: Suzanne Leclair, Marie Achille, Deborah Ummel

Background: Even when successful, organ transplantation may leave the isolated transplant patient struggling through an identity crisis and coping with a challenging new way of life. Inspired by a recent "body mapping" artistic project for HIV patients, the authors set up a pilot body mapping workshop for transplant patients, as the benefits of group interventions in the post-transplant period have previously been documented. This pilot workshop, considered a group intervention, allowed the participants to translate their experiences into a painted self-portrait incorporating the transplanted organ.

Objective: This qualitative study was designed to determine the feasibility of a body mapping workshop for transplanted patients as well as its relevance, through the exploration of the participants' perceptions of their experience during such a group intervention.

Method: Five participants (4 liver and 1 kidney transplant patients), recruited between January and March 2009 from the transplant interdisciplinary service of Université de Montréal teaching hospital, took part in a weekend-long 15 hour body mapping workshop held in collaboration with the Visual Arts department of UQAM University. The participants answered a written semi-structured questionnaire immediately after the workshop and were re-interviewed 8 to 10 months later with a modified version of the initial questionnaire. A qualitative analysis of the data was performed using both questionnaires.

Results: The images created by the participants were richly evocative of their individual experiences. On the questionnaire, they felt overwhelmingly positive about the workshop and thought it was feasible in spite of the required efforts and their lack of prior artistic experience. They valued highly both the opportunity to share with their transplanted peers and the strong ensuing sense of affiliation. The analysis of the second interview's data confirmed these findings while other themes emerged such as the participant's deep satisfaction with the body-maps as a powerful means of self-expression and as a creative experience facilitated by an art teacher throughout the workshop.

Conclusions: Our study suggests that a body mapping workshop might be beneficial for transplanted patients. Future quantitative research focusing on quality of life or other psychosocial parameters following such a workshop is needed. This type of group intervention may also prove to be useful as an educational tool for trainees interested in psychosocial aspects of transplantation. Further research in medical education should explore this avenue. Finally, the use of body maps for patients suffering from other chronic illnesses should also be explored.

71. (T) "ECT saved my life" – a case of Antiphospholipid Syndrome, Stroke and Post-Stroke Depression Treated with ECT

Presenting Author: Magdalena Romanowicz, MD

Co-Authors: Maria Lapid, MD, Christopher Sola, DO, FAPM

Introduction: Post-stroke depression (PSD), has long been recognized as one of the most common complications of stroke. It has also been observed that in patients with untreated PSD, depression becomes chronic and may persist for years following stroke. ECT is accepted as an effective treatment for depression; however few studies have attempted to assess the safety and efficacy of ECT among elderly PSD patients, and we could find *no* studies examining safety or efficacy in a younger population. We

report the case of 30-year-old woman with a history of stroke secondary to antiphospholipid syndrome, after which she became dramatically depressed and tried to kill herself via massive overdose on trazodone.

Methods: Case report of a patient hospitalized for depression on a Medical Psychiatric Unit in January of 2010. Medical, neurologic, and psychiatric histories, physical examination findings, results of laboratory, imaging and neurophysiologic investigations, and treatment response with medications and ECT were recorded.

Results: Upon admission, Neurology and Internal Medicine were consulted in order to maximize the patient's safety during the ECT. She has suffered a stroke in 2002 and in June of 2009. Neurology did not feel that there were any contraindications to beginning ECT treatment, which she tolerated well with the only initial complaint being a headache, which was successfully treated with acetaminophen. She did not exhibit any stroke-like symptoms and actually demonstrated some improvement in her mood after the first treatment. She received three bitemporal treatments and then on her request was transferred closer to home to complete her treatment. Her INR was monitored closely and kept between 2.5 to 3.5 during her hospitalization.

Conclusions: Our case suggests that ECT may be effective and well-tolerated in PSD patients. Increased pre-treatment vigilance, including a careful neurologic examination, brain imaging and EEG, along with ongoing close monitoring of INR and blood pressure are important measures for the patient's safety.

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72. (T) The safety of ECT in elderly patients with history of stroke: a report of 3 cases.

Presenting Author: Magdalena Romanowicz, MD

Co-Authors: Maria Lapid, MD, Mathew Lilly, MD, Christopher Sola, DO, FAPM

Introduction: ECT is a safe and effective treatment for major depression in the elderly. However, there is a risk of ischemia or hemorrhage with ECT especially in those with recent stroke. Literature on the use of ECT in patients with history of stroke is sparse. A recent study by Tess, recommended delaying ECT for at least 1 month following an acute stroke. We describe 3 cases of severely depressed elderly who received electroconvulsive therapy (ECT) 2 months, 1 year and 2 years post stroke, respectively.

Methods: Case report of 3 patients hospitalized for depression on a Medical Psychiatric Unit in December of 2009. Medical, neurologic, and psychiatric histories, physical examination findings, results of laboratory, imaging and neurophysiologic investigations, and treatment response with medications and ECT were recorded.

Results: The patients received 2, 9 and 10 treatments respectively. One of the 3 patients experienced resolution and one partial remission of depression. Two out of 3 patients tolerated ECT well with no significant side effects. One of the patients after her first ECT became hypotensive and needed ephedrine. The patient was severely malnourished and refused taking any fluids. It was felt that the hypotensive episode was more likely due to her general medical condition than ECT itself. We didn't observe any worsening of stroke or any other neurologic deficits. We have recommended maintenance ECT for 2 patients.

Conclusions: Our cases suggest that ECT post stroke patients tolerated and obtained benefit from ECT. With appropriate clinical observation, patients with history of stroke can be considered for ECT.

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73. Post-Hypoxic Leukoencephalopathy: A Review of Two Cases.

Presenting Author: Amy Rosinsk, MD

Purpose: Leukoencephalopathy refers to a group of diseases affecting the white matter of the brain, via destruction of myelin. Etiologies include toxins, trauma, infections, and hypoxia. Post-hypoxic leukoencephalopathy can be seen after narcotic or benzodiazepine overdose. MRI shows increased T2 signal in the supratentorial white matter. Patients may present with a biphasic course, with initial recovery and then development of symptoms including cognitive decline, upper motor neuron signs, shuffling gait, psychosis, and muteness. The syndrome is thus sometimes known as delayed post-hypoxic leukoencephalopathy.

Methods: Two cases of post-hypoxic leukoencephalopathy were seen by the psychiatry consultation service. The first was a 33 year old woman with a history of bipolar disorder and bulimia nervosa, who developed severe hypoxia after benzodiazepine and opiate overdose. She recovered, but later exhibited cognitive decline and bizarre behavior, such as going on a binging spree in a grocery store. She was psychiatrically hospitalized for agitation, and received haloperidol, developing catatonic symptoms of mutism and rigidity. An MRI of the brain showed diffuse T2 hyperintensity of supratentorial white matter, fitting the syndrome of delayed post-hypoxic leukoencephalopathy. She had partial improvement of catatonic symptoms with lorazepam, and made a near full recovery after 10 treatments of ECT.

The other patient was a 53 year old man with COPD, who was taking benzodiazepines and opiates for anxiety and pain. He was admitted for worsening cognition since an episode of severe hypoxia 3 weeks earlier. Head CT was normal, and delirium due to continued use of opiates and benzodiazepines was suspected. Lack of improvement prompted an MRI, which showed diffuse supratentorial white matter changes. Toxic and infectious work-up was negative, and the presumed diagnosis was post-hypoxic leukoencephalopathy, likely triggered by the prior episode of hypoxia.

Conclusions: Post-hypoxic leukoencephalopathy is a syndrome that can cause mental status changes and various neurologic symptoms. Patients may be assumed to have a psychiatric disorder or delirium. In the two cases presented, one patient's decline was misidentified as return of psychiatric symptoms. Neuroleptics further worsened her condition. The other patient was diagnosed with delirium, but prolonged symptoms led to the eventual diagnosis of leukoencephalopathy. Psychiatrists should be aware of the syndrome of post-hypoxic leukoencephalopathy, and its contribution to mental status changes. Early diagnosis can help guide treatment planning, and avoid use of medications that could worsen symptoms. ECT may also be helpful for catatonic symptoms.

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74. Teaching the Core Competencies in Psychosomatic Medicine

Presenting Author: Andrew Roth, MD, FAPM

Co-Authors: Philip Bialer, MD, FAPM, William Breitbart, MD, FAPM

Background: The American Board of Psychiatry and Neurology officially recognized Psychosomatic Medicine (PM), as a subspecialty of Psychiatry in 2003. Fellowship training in PM was then approved for accreditation by the Accreditation Council for Graduate Medical Education (ACGME). The ACGME developed an educational philosophy based on the six Core Competencies (CC) to teach the skills of a medical specialty to trainees: Patient care; Medical Knowledge; Professionalism; System-based Practice; Practice Based Learning and Improvement; and Interpersonal/Communication Skills. The Academy of Psychosomatic Medicine (APM) has developed specialty-specific CC for PM, and is working to translate that information into concrete teaching formats. The APM sub-committee on Fellowship Training is currently developing an assessment method of the CC to guide evaluations of fellows. We describe a project developed at the PM Fellowship Program at Memorial Sloan-Kettering Cancer Center/Weill Cornell Medical College as an attempt to move toward the most optimal method of improving knowledge about the CC.

Method: Six first-year PM fellows were given a test of their knowledge of the six CC at the beginning of the fellowship year. The survey consisted of 14 questions, 2 on each CC, with 2 questions related to the CC in general. This questionnaire was not put through a rigorous psychometric validation process. The questionnaire was reviewed and commented on by members of the faculty.

Every two to three months throughout the fellowship year, fellows received a case vignette that focused on a unique CC. They received questions for discussion and then the description of that particular CC as it is used for formal evaluation of the fellow at the middle and end of year evaluations.

Towards the end of the academic year fellows will be tested again on their knowledge of the CC.

Results: Test scores at the start of the year ranged from 5/14 (36%) to 11/14 (79%), showing significant variability in knowledge of the CC. Fellows liked the format of the case vignettes and looked forward to the discussions of each vignette and CC. Midyear evaluations showed somewhat improved understanding of the CC by fellows compared to past years. We will report on the end of year knowledge test scores.

Conclusion: A better understanding by Fellows of the CC model for teaching the principles and skills of PM via a knowledge questionnaire and case vignettes will make this model more transparent to trainees and facilitate their ability to meet those CC expectations.

75. Special considerations in post liver transplant delirium: a literature review

Presenting Author: Jyoti Sachdeva, MD

Co-Authors: Elizabeth Gorevski, MD, Jill Martin-Boone, MD

Purpose: Neurological complications after liver transplantation are more common (4-70 %) than after other solid organ transplants . Encephalopathy is most prevalent followed by seizures. Presentation of encephalopathy varies from mildly altered consciousness to delirium and coma. The survival rate of patients with neurologic complications is lower then that of patients without, but not statistically significant (79.1 % vs. 82.4 %, $p>0.05$). Neurological complications also result in longer hospital stays.

We reviewed the literature to understand phenomenology and causative factors of post liver transplant (LT) delirium and to assess if any pre transplant recipient factors are predictive.

Methods: A PubMed search was conducted by using search terms delirium, hepatic encephalopathy, altered mental status, liver transplantation, cyclosporine, FK, prograf and tacrolimus from 1980 to 2010. A total of 17 articles were retrieved where neurological complications post liver transplant were described.

Results: Patients commonly presented with altered mental status within 30 days post LT. Phenomenologically, patients presented with headache, tremulousness, vivid dreams, photophobia, focal neurologic deficits and seizures in addition to delirium. Causes of post LT altered mental status were multiple including: anoxic, metabolic, infectious, graft rejection, or drug-related. A common cause of delirium post LT is Calcineurin inhibiting immunosuppressive medication (CIIs) neurotoxicity. Moderate to severe symptoms warrant evalution for posterior reversible leukoencephalopathy syndrome (PRES) which presents with characteristic radiological findings. It (PRES) appears to occur in 5% of patients after LT. The cellular basis for the neurotoxicity associated with either cyclosporine or tacrolimus has not been conclusively identified.

Studies are inconsistent about correlation of liver diagnosis with post transplant severe neurological event. The incidence of neurological symptoms is similar between cyclosporine (25%) and tacrolimus (23.8%). Some predicative factors for post LT neurological complication were identified as- recipients rated as Child-Pugh grade C, intraoperative hypotension and primary graft dysfunction. Other risk factors mentioned were advanced recipient age, malnutrition, ionic disorders, coagulopathy and pre transplant hepatic encephalopathy .

Treatment is based on correction of electrolyte imbalance and optimization of immunosuppressive levels.

Conclusion: There is high incidence of neuropsychiatric symptoms in the early post LT period. Although there can be many possible etiologies, the possibility of CIIs neurotoxicity should always be considered. Further research is needed to identify pretransplant factors predictive of post transplant delirium. Careful recognition and prompt treatment of post LT delirium will decrease morbidity and mortality.

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76. An unusual psychiatric presentation of hepatic encephalopathy: case report and literature review

Presenting Author: Jyoti Sachdeva, MD

Purpose: Hepatic encephalopathy (HE) is a neuropsychiatric syndrome occurring in setting of liver disease. Pathophysiology implicates porto-systemic shunting and defective hepatic clearance of nitrogenous metabolites. Toxins including ammonia cause Alzheimer type II changes in astrocytes and alterations in CNS neurotransmitter levels. Patients typically present with psychomotor slowing, confusion, disorientation, personality changes, circadian rhythm changes, asterixis, and agitation which may progress to stupor or coma. We present a case of HE masquerading as mania.

Methods: Case report and literature review

Background: 61 year old Caucasian male with chronic hepatitis C presented with insomnia, confusion and behavioral changes. His wife had noted impaired attention , poor registration and changes in sleep pattern over last one month. In the preceding 8 months, he had been treated with prn zolpidem and Sertraline 50 mg for mild depression. He denied history of manic or psychotic symptoms. Family psychiatric history was significant only for mother with anxiety. He reported alcohol abstinence . Physical exam was remarkable only for lower extremity numbness consistent with diabetic neuropathy. Lab values were normal except for platelets at 71thou /ul, elevated Ammonia at 62 Umol /l, ALT of 79 u/l, TSH 7.12 IU / ml (free T4 normal) and glucose of 234 mg/ dl. Head CT was nomal, urine drug screen was positive for cannabis (> 135 ng/ ml). He was treated with lactulose and Xifaxan.

On evaluation 2 days post admission, patient was cognitively intact . He reported insomnia, racing thoughts and extreme energy. This normally reserved man made inappropriate sexual comments and exhibited euphoric mood, pressured speech with flight of ideas, distractibility, hyperreligiosity and grandiose delusions. He believed that he had special powers. He felt that he had been cured and was preoccupied with divine intervention. Sertraline was discontinued and patient was treated with low dose lithium and risperidone. Symptoms resolved rapidly and these psychotropics were successfully discontinued in the subsequent months.

Results: Literature review revealed only one case report of mania secondary to HE , the syndrome typically being described as a delirium.We briefly review clinical stages, pathophysiology and diagnostic features of HE delirium.

Conclusion: Diagnosing HE is essential for appropriate treatment and predication of prognosis. Consultation psychiatrists need to aware that HE should be considered in the differential diagnosis of patients presenting with mania symptoms in setting of liver disease.

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77. (T) Treatment of Chronic Pain with Buprenorphine in a Veteran with Traumatic Brain Injury

Presenting Author: Shilpa Sachdeva, MD

Co-Authors: Adekola Alao, MD, FAPM

Background: We report a case of a 27-year-old Iraq War veteran with no previous psychiatric history who sustained severe traumatic brain injury (TBI) following a blast injury from an improvised explosive device. The patient subsequently suffered severe anxiety symptoms controlled only by combination therapy with benzodiazepines and venlafaxine. Even more disabling, the patient also experienced intractable headache and shoulder pain unresponsive to non-steroidal anti-inflammatory agents, tramadol, gabapentin, or NMDA-receptor antagonists. Given the risk of respiratory depression with his current medications, opioid analgesics were not favored for the management of his pain. The patient was started on sublingual buprenorphine at a dose of 8mg three times daily with significant improvement. This dose was maintained and the patient was able to function relatively pain-free.

Discussion: Chronic pain is a significant complication in patients with TBI and is reported by a majority of patients with TBI, regardless of the severity of the injury. The treatment of chronic pain among individuals can be challenging. Patients with TBI may be on other medications for impulse control, such as anticonvulsants and benzodiazepines.

Further treatment with narcotic analgesics may therefore increase the risk of respiratory depression. Buprenorphine is a partial mu agonist whose effects plateau at higher doses, at which time it begins to act like an antagonist. It is this property at higher doses that limits its dose-dependent respiratory depression. Buprenorphine thus has the advantage of effective analgesia with minimal sedation and may be useful for treating chronic pain among TBI patients already taking benzodiazepines. While clinicians should be aware of these possible benefits, more studies are necessary to evaluate the efficacy of buprenorphine among TBI patients with chronic pain.

78. (T) Treatment of Sleep Disturbance in Patients with Traumatic Brain Injury

Presenting Author: Shilpa Sachdeva, MD

Co-Authors: Adekola Alao, MD, FAPM

Introduction: Traumatic brain injury (TBI) affects nearly 1.5 million individuals in the United States each year. During peacetime, over 7,000 Americans with a diagnosis of TBI are admitted to military and veterans hospitals every year; this number increases significantly during combat, during which TBI may comprise up to 20% of survivor casualties. Pain and discomfort relating to injuries are frequent causes of insomnia or sleep disturbance in TBI patients. Sleep disturbance can manifest as difficulty falling or staying asleep, early morning wakening and non-restorative sleep, and affects up to 30% of individuals with TBI. Because there are few studies on pharmacotherapy for sleep disturbances in TBI, many physicians base their intervention on experience with the general population. A literature review was performed and recommendations for treatment of sleep disturbances in patients with TBI are summarized here based on published findings.

Conclusion: Non-pharmacological means should be the first-line treatment for sleep disturbances in patients with TBI. These include sleep hygiene and cognitive behavioral therapy. Physicians and other clinicians should lend careful attention to the specific sleep complaint, adverse effect profile of the medication, as well as the anticipated duration of treatment before deciding upon a sleep agent for patients with TBI.

79. (T) Malingering in Sickle Cell Anemia

Presenting Author: Shilpa Sachdeva, MD

Co-Authors: Adekola Alao, MD, FAPM

Introduction: There has been some suggestion that sickle cell disease (SCD) are not adequately treated in times of pain crises. Many patients do not seek medical attention during these episodes, and some believe that they are underreported. The tendency to form polymers is dependent on the concentration of Hgb S, which is why carriers may be asymptomatic. When polymers are formed, the affected red blood cells appear rigid and crescent shaped, fragile and easily hemolysed.This leads to blockage of small blood vessels, thus, compromising blood supply to bones and tissues contributing to severe bone pain. Among psychiatric complications, depression,anxiety and PTSD, have been described.

Case Report: A 17 year old African American female presented to the ER with a fracture in her right tibia and fibula. She admitted to having a history of SCA with numerous episodes of bone pain crises with intense and severe pain. These presentations were treated with ketorolac and meperidine at various dosages at multiple times in the past . On this occasion, the patients radiological studies did not confirm any evidence of sickle cell changes. This anomaly prompted the ER physician to order a repeat immunoglobulin electrophoresis, which came back Hb AA. When the patient was confronted with this, she became angry and attempted to leave against medical advice. Her fracture was treated by an orthopedic surgeon and the patient was subsequently discharged.

Discussion: The emergency department physician plays a pivotal role in determining the quality of care patients will receive during a SCD crisis .There has been a case reported on a 35 year old African American male malingering sickle cell crises with multiple co-morbid conditions including Candidal esophagitis, deep vein thromboses,IVC filter. There have also been reports of under-medication of patients with sickle cell crises. However, the possibility of a patient malingering sickle cell crisis should be at the forefront of the ER physician.

Conclusion: If in doubt , ER physicians should order Ig Electrophoresis in patients of Sickle cell crisis to confirm or rule out diagnosis of SCD in a suspicious patient. As illustrated in this case, ER physicians regularly prescribed narcotic pain killers without any objective evidence of SCD pathology . It is suggested that there should be verification of the diagnosis of SCD prior to the prescription of narcotics.

80. (T) A case of delayed hyponatremia with Sertraline therapy.

Presenting Author: Shilpa Sachdeva, MD

Co-Authors: Anurag Singh, MD

Introduction: Syndrome of Inappropriate Diuretic hormone secretion (SIADH) is a rare but important side effect of sertraline generally seen in the initial weeks of therapy. . We report a patient who developed significant hyponatremia related to SIADH after five years on a stable dose.

Case Report: A 68-year old female with history of depression and bronchial asthma presented to the hospital with a seven-day history of generalized weakness and an episode of pre-syncope. Her medications included sertraline 200 mg daily, albuterol inhaler and multivitamins. Her sertraline dose had been stable for the last five years. Physical examination revealed stable vital signs, no edema or focal neurological deficits. Her laboratory data revealed sodium of 120meq/L, blood urea nitrogen of 7mg/dl, serum creatinine of 0.6 and urine sodium of 126 meq/L. Her serum osmolality was 240 meq/kg and concurrent urine osmolality was 434 meq /Kg. Her serum sodium was 132 meq/L two months ago. This was suggestive of SIADH and sertraline was discontinued. She was placed on water restriction with resulting improvement in serum sodium in next three days. Her subsequent clinical follow-up showed no recurrence of hyponatremia.

Discussion: Depression is the second most common chronic condition encountered in outpatient medical practice after hypertension. Selective serotonin re-uptake inhibitors (SSRI) are the preferred treatment with Sertraline being the most commonly used antidepressant. Hyponatremia rarely complicates sertraline therapy, typically between 5 and 120 days after initiation or dose change. But, as evident from our case, hyponatremia can develop even years after sertraline is started. Risk factors for the development of include advanced age, female gender, concomitant use of diuretics, recent history of pneumonia, dose, low body weight, and low baseline serum sodium concentration (<138 mEq/L). Mechanism of hyponatremia with sertraline is multifactorial but the most studied mechanism involves increased release of ADH through serotonin receptors. Presenting symptoms include confusion and fatigue but focal neurogical symptoms can develop with severe hyponatremia. In addition to a low serum sodium concentration, serum osmolality is low and urine osmolality and sodium are inappropriately high. Sertraline induced SIADH often improves with fluid restriction and discontinuation of the agent but symptomatic severe hyponatremia might need aggressive diuresis or electrolyte replacement with hypertonic saline. Physicians prescribing Sertraline should be aware of the possibility of delayed development of hyponatremia. Routine monitoring of electrolytes might benefit those who have additional risk factors but all patients should be educated about the signs and symptoms of hyponatremia.

81. (T) Sudden unexpected death in a 20 year old inpatient with seizure disorder and mental retardation

Presenting Author: Neil Sanuck, MD

Co-Authors: Carolina Retamero, MD, Aurelia Bizamcer, MD

Purpose: Patients with epilepsy have an increased risk of premature death. The mortality in catastrophic epileptic syndromes like Lennox-Gastaut has been identified in 3-7%. It usually results from accidents and sudden unexpected death in epilepsy (SUDEP.) We present the case of a 20 year old patient with a history of mental retardation and treatment refractory Lennox-Gastaut syndrome, who died unexpectedly on an inpatient psychiatric unit after 47 days of treatment for mood swings, irritability and behavioural abnormalities. Authors then will proceed to review the diagnosis, evaluation and management of patients at risk for SUDEP.

Methods: The OVID and PubMed databases were searched using the following keywords: psychiatry inpatient death; Lennox-Gastaut syndrome; mortality in epilepsy; mortality in psychiatric patients; sudden unexpected death in epilepsy.

Results: Lennox-Gastaut syndrome is an ill defined syndrome characterized by multiple seizure types (tonic-clonic, absence, myoclonic, status epilepticus), a slow (less than 2.5-hz) spike and wave pattern on the interictal EEG and mental retardation. Mental retardation in patients with epilepsy increases the risk of behavioural problems and it is considered a risk factor for SUDEP. Other risk factors for SUDEP include early onset, frequent generalized tonic-clonic seizures, intractable epilepsy, medication non-compliance, >1 seizure/month, age 20-45, polytherapy, >10 years with epilepsy, alcoholism and male gender. SUDEP accounts for 2-18% of all deaths in patients with epilepsy. Literature regarding the prevention of SUDEP is scarce. However, it is recommended to identify patients at high risk in order to educate (controversial), promote adherence to treatment, inquire about seizure precipitants, and evaluate for regular night checks, neurology referrals, monitoring devices and aggressive treatment like neurosurgery.

Conclusions: It is not uncommon for inpatient psychiatrists to encounter patients with concomitant diagnoses of mental retardation and seizure disorders. These patients may initially present with behavioural problems and impulsivity. Psychiatrists need to be aware of the increase mortality risk that exists in patients with seizure disorders and the risk factors associated with SUDEP, as well as the current recommendations for SUDEP prevention.

82. Psychiatric Admission Directly from an Outpatient Psycho-Oncology Clinic

Presenting Author: Isabel Schuermeyer, MD

Co-Authors: Olga Kostenko, MD

Background: Patients with cancer have higher rates of depression and anxiety, as well as suicide, when compared to the general population. While the rate of suicide is higher

than the general population, it is lower than the rate of suicide in the chronically mentally ill. Studies have been conducted evaluation the rates of psychiatric admission in survivors of childhood cancer and risk of admission for depression in patients after being given a cancer diagnosis.

Many cancer centers have developed psychosocial oncology programs with a psychiatric clinic as part of the resources offered to patients. The rate of psychiatric admission directly from these types of clinics remains unknown.

The rate of psychiatric admission after an initial evaluation from an outpatient psycho-oncology clinic was evaluated through a retrospective, IRB approved chart review of 130 patients referred for psychiatric evaluation. Demographics were collected including age, gender, type of cancer, psychiatric diagnosis and treatment plan, including emergent inpatient admission.

The rate of admission was found to be 4.6% (N=6), with the majority being males (N=4). The diagnosis included depression (N=5) and psychosis secondary to a general medical condition (N=1). The cancer types represented were hematological malignancies (N=3), genito-urinary tumor (N=1) , gastointestinal tumor (N=1) and brain tumor (N=1).

Rates of psychiatric admission directly from a psycho-oncology clinic, while low, are significant and should be recognized as a possible outcome from psychiatric evaluation. As more programs develop psychiatric outpatient clinics, within any medical specialty, it is important to plan for these types of treatment plans.

83. Depression, Anxiety and Decisional Regret in Cytogenetic Prognostication for Patients with Uveal Melanoma

Presenting Author: Isabel Schuermeyer, MD

Co-Authors: Anca Maican, MD, Arun Singh, MD, Richard Sharp, MD

Objectives: This study was undertaken to further understand the effect of cytogenetic prognostication in patients with uveal melanoma with regard to mood and anxiety. Further, to understand any decisional regret that these patients may experience either immediately after making the decision to have testing or later, after the results of the testing have been known.

Methods: Patients diagnosed with uveal melanoma were offered enrollment in an IRB approved study for cytogenetic testing of the tumor to determine prognosis. These patients were asked to complete the Hospital Anxiety and Depression Scale (HADS) along with a decision regret scale at three time points - pre-operatively, at post operative time points of 3 and 12 months.

Results: Results are currently being obtained and preliminary findings (i.e. pre-operative and 3 month follow up) will be available at time of conference.

Conclusions: We suspect finding higher anxiety with low decision regret pre-operatively. Post-operatively, we believe there will be higher depression and continued low decision regret. Again, current findings will be presented at the meeting.

84. Hair analysis vs. conventional methods of drug testing in would-be transplant candidates with substance abuse issues

Presenting Author: Peter Shapiro, MD, FAPM

Co-Authors: Michelle Acosta, MD, Diane Lewis, MD, Deborah Miles, MD, Thomas Schiano, MD, Deborah Haller, MD, Jo Anne Gomez, MD, Shulamit Sabag-Cohen, MD, Howard Newville, MD

Background: Most transplant programs require 6 months of abstinence from substance use prior to surgery. Variable testing procedures may impact findings, potentially biasing the selection process. We compared results of conventional alcohol/drug tests with those of hair toxicology.

Methods: 42 patients participating in a multi-site substance abuse intervention study after rejection from transplant candidacy on grounds of substance abuse provided 140 sets of samples over the duration of the intervention. Samples included self-report, blood, urine, breathalyzer, and hair. We computed sensitivity, specificity, and kappa values for conventional testing compared to hair testing.

Results: At baseline, 35.7% self-reported using EtOH, 28.6% cocaine, and 21.4% opiates in the past 30 days. Only 34% of alcohol-positive hair tests were self-reported, with 12% detected by BAL. Sensitivity was fair for self-report (.34), but low for BAL (0.12); specificity was high (0.85 and 1.0). Kappa values showed only slight agreement (0.18 and 0.12, respectively) compared to hair. For cocaine and opioids, 48% and 58% of positive hair samples were self-reported, with 42% and 52% detected in urine. For cocaine, sensitivity was moderate for self-report and urine (.48 and .42) and specificity was high (1.0 and 0.98). Kappa values were moderate (0.55 and 0.47). For opiates, sensitivity was moderate for self-report and urine (.58 and .52), with specificity high (.93 and .95). Kappa showed moderate agreement for self-report (.56) and urine (.52) compared to hair.

Conclusion: Conventional testing fails to detect substance use in a substantial number of at-risk patients who might otherwise be candidates for transplantation. Hair testing is more sensitive. SUPPORTED BY NIH/NIDA (R01DA015772)

85. The Fellowship of AA: A case series of psychosocial evaluations of living organ donors for the transplant candidates they met in Alcoholics Anonymous

Presenting Author: Akhil Shenoy, MD

Background: Living unrelated kidney and liver donor transplantation has increased in recent years to help overcome the shortage of available organs through cadaveric and family member donation. The United

Network for Organ Sharing (UNOS), in collaboration with the American Society of Transplant Surgeons and the American Society of Transplantation, has developed guidelines for the psychosocial evaluation of prospective living kidney donors who have neither a biologic nor longstanding emotional relationship with the transplant candidate. These guidelines include required components of reviewing the nature and degree of closeness in the relationship between the donor and recipient. Three cases in which the donors had met the recipients through alcoholics anonymous are discussed. The donor's psychological status, motivation, and expectations were assessed in the context of the history of the donor-recipient relationship in AA. A past history of depression, alcohol abuse, lack of health insurance and poor family support were identified risk factors for donation. One case was rejected due to ambivalence and undeveloped motivation for donation. Two cases required specific psychosocial recommendations to help improve the donor's candidacy.

86. (T) When patients lie and deceive: a case of a patient with pseudologia fantastica and bipolar disorder

Presenting Author: Keila Sierra, MD

Co-Author: Carolina Retamero, MD

Background: The diagnosis and management of patients with factitious disorder is a frequent and vexing problem for the Consultation Liaison psychiatrist. It is even more complicated when these patients also have pseudologia fantastica.

Pseudologia fantastica in the context of factitious disorder and personality disorders has been widely described in the literature; however, its description associated with mood or psychotic disorders is rare.

We will present a case of a 46 year-old woman with a self reported history of hermaphroditism, gender identity and bipolar affective disorders. The patient reported undergoing surgical correction at the age of six year. During her multiple hospitalizations, she would present alternately as a flamboyant woman when she was manic or a down-trodden man when depressed. Finally permitting a complete physical examination after many encounters, a normal female was revealed.

In factitious disorders, the intentional production of physical or psychological signs and symptoms may include fabrication of subjective complaints, self inflicted conditions, exaggeration or exacerbation of preexisting conditions or a combination of these; often vague and inconsistent when questioned in great detail.

"Pseudologia fantastica is a syndrome characterized by a superstructure of some actualities erected on a foundation of fantasy." It is often difficult to determine whether the lies are an actual delusional distortion of reality or are expressed with the conscious or unconscious intent to deceive. The fantasy is frequently dropped when the patient is confronted with contradictory evidence or flees the hospital. However, patients with pseudologia fantastica seem compelled to repeatedly act out their fantasies.

We will provide a review of the literature of pseudologia fantastica in the context of factitious disorders and affective illnesses.

87. (T) Positive Outcomes from Quality Improvement Initiatives on a Psychiatric Consultation-Liaison Service

Presenting Author: Sibyl Simon, MD

Co-Authors: Marie Tobin, MD, Daniel Yohanna, MD, Anna Bower, APN

Background: Psychiatric Consultation-Liaison Services provide valuable assistance in the management of complex patients. The complexity of medically ill hospitalized patients has risen, driven by economic and political pressures. This is particularly the case in inner-city academic centers; consequently, it is increasingly important for academic CL services to provide care that is timely and effective. The Psychiatric CL Service at the University of Chicago Medical Center implemented a Quality Improvement project to identify areas of potential improvement in the process of consultation.

Methods: Two surveys were sent to an email database of mixed discipline providers querying core aspects of the Consultation process. The survey was comprised of a 9 point questionnaire and comment section aimed at identifying areas of weakness. Corrective action plans were instituted and a re-survey was sent to a total of 119 providers with a total of 171 unique consults. Results: Part One of the study, the areas of weakness identified included unclear reason for, vague recommendations made, and delay in transmitting recommendations. Corrective actions including the implementation of a consult checklist for psychiatry residents, the formulation of a clear, rote communication regarding the timeframe for when recommendations would be available to providers as well as other steps were instituted. Part Two of the study surveyed 119 providers and revealed a satisfaction rate of timeliness as 97%, of communication at 85% and overall satisfaction of 90%.

Conclusions: Overall, this project revealed the general casualness of the Consultation process with the potential pitfalls that can result. The QA/QI process offered a great tool in examining the services provided by the CL Service, as well as a methodology to examine outcome measures in patient care. In the first part of the project, we clarified the process of consulting and identified areas for improvement. Based on the data, action plans for improvement were developed and were implemented with success. An interesting point to note was that satisfaction in technical aspects did not equate with satisfaction with resolution of patient complaints, a difficulty in Psychiatric CL work.

88. Looking Beyond the Scale: Psychiatric Issues in Bariatric Surgery

Presenting Author: Sanjeev Sockalingam, MD

Co-Authors: Katie Warwick, MD, Raed Hawa, MD

Background: With the growing epidemic of obesity and associated medical burden, bariatric surgery has been heralded as the only effective treatment of morbid obesity. Candidates for bariatric surgery often have high rates of psychiatric illness as compared to the general population and often undergo significant psychosocial challenges post-surgery. Although psychosocial factors do not conclusively predict surgical weight loss outcomes, the complex relationship between psychosocial factors and obesity has prompted the involvement of mental health professionals including psychiatrists. In addition, the post-operative psychological challenges for bariatric surgery patients may necessitate psychiatric involvement and resources in order to maintain weight loss long-term.

The following session will describe the role of the psychiatric consultant in the care of candidates for bariatric surgery. Longitudinal case examples will be used to illustrate key psychiatric and nutritional issues emerging over the course of bariatric surgery. Cases and content will be based upon the presenters' experience within the University of Toronto Bariatric Surgery Collaborative, which is a collaborative involving 6 university affiliated hospitals in Toronto. Dr. Sockalingam will present a psychosocial framework for understanding morbid obesity and describe an approach to pre-surgery psychiatric assessment, including predictors of weight loss. Ms. Warwick will review diet interventions for pre-surgery weight loss, common post-surgical nutritional concerns and factors leading to diet non-adherence post-surgery. Dr. Hawa will discuss the influence of bariatric surgery on pharmacotherapy and the evidence for specific psychological treatments pre- and post-surgery to improve psychosocial and weight loss outcomes.

89. (T) Self-Regulatory Capacity and Coping in Hematologic Malignancies

Presenting Author: Lise Solberg Nes, MD

Co-Authors: Shawna Ehlers, MD, Dennis Gastineau, MD

Background: A cancer diagnosis is accompanied by a number of physical, emotional, and practical challenges, and people's ability to adjust may depend on their capacity to self-regulate. Self-regulatory capacity involves ability to exercise control and guide or alter cognitive, emotional, and behavioral processes. Research indicates that self-regulatory capacity is a limited resource that can be depleted or fatigued, however, and this could particularly be the case in the context of stressful life events such as cancer treatment. Research on the impact of self-regulatory capacity in cancer populations is in its infancy, and to our knowledge no studies have so far examined the impact of self-regulatory capacity or fatigue on coping. The current study therefore sought to examine the impact of self-regulatory capacity or strength on coping in patients diagnosed with, and undergoing treatment for, hematologic malignancies. A scale gauging cognitive, emotional, and behavioral factors of self-regulatory capacity was examined in patients (N = 297) undergoing treatment for hematologic malignancies in relation to symptom burden. Multiple hierarchical regressions showed low self-regulatory capacity (i.e., self-regulatory fatigue) to be associated with use of avoidant coping strategies such as behavioral disengagement (p <.001), denial (p < .001), distraction (p =.002), and substance use coping (p =.009), as well as self-blame (p =.001) and high negative expressivity (p <.001). Higher self-regulatory capacity (i.e., self-regulatory strength), on the other hand, was associated with approach coping strategies such as planning (p < .02) and instrumental social support coping (p < .04). Low self-regulatory capacity has at times been linked with physical pain, fatigue, and depression, and the current study therefore controlled for these factors in all analyses. These results reveal the essential role of self-regulatory capacity when adjusting to and coping with a serious illness such as cancer. The significant negative impact of self-regulatory fatigue on choice of coping strategies during a crucial treatment period not only underline the need for further research in this area, but clearly also indicates that development of interventions that may improve self-regulatory capacity is of essence.

90. (T) Anti-NMDA Receptor Limbic Encephalitis : Case Based Literature Review

Presenting Author: Cathy Southammakosane, MD

Co-Authors: Anthony Cavalieri, MD, Christopher White, MD

Purpose: At our institution there have been several recent cases representing the interface between medicine and psychiatry arising from a specific paraneoplastic syndrome known as anti-NMDA receptor limbic encephalitis. This process is associated with ovarian teratomas and antibodies specific to the glutamate receptor. This poster represents a case based summary of the published literature on the subject focusing on both clinical presentation and treatment.

Methods: An extensive PubMed literature search was conducted with the search terms paraneoplastic syndrome, limbic encephalitis, and anti-NMDA receptor.

Results: There have been several case reports in the neurological literature; four publications detail the cases of over one hundred women with anti-NMDA receptor limbic encephalitis. However, the Psychiatric literature is curiously silent; our search yielded only three such publications. Our patients demonstrated the typical findings: young, otherwise healthy female, with antecedent headache, new-onset psychiatric symptoms, seizure activity (particularly in the temporal lobes), central hypoventilation, hyperthermia and tachycardia, dyskinesia and catatonia-like symptoms. Course of illness typically progresses in distinct phases: from prodromal symptoms to psychosis to unresponsiveness then dysautonomia. Diagnosis is suggested by imaging and positive antibody testing. Definitive treatment is excision of the neoplasm, but other therapies include immunosuppressants, IVIg or plasma exchange.

Conclusions: We present two cases of a paraneoplastic disorder with prominent neuropsychiatric symptoms. Initially,

neurobehavioral symptoms predominate; therefore, the consulting psychiatrist should be prepared to be the first medical point of contact in caring for these patients with new mental status change. The symptoms mimic those seen in primary psychiatric disorders such as schizophrenia and bipolar disorder, complicating both recognition and treatment. Knowing the breadth of general medical conditions that cause neuropsychiatric phenomena and understanding their presentations are invaluable in promptly providing the best possible patient care. Unfortunately, our experience is that an accurate diagnosis is often delayed leading to unnecessary suffering by the patient and their family as well as significantly increased health care costs when consultation is not obtained early in the patient's presentation.

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91. Hyperthyroidism and Hyperparathyroidism in a Patient with Bipolar Disorder and Obsessive-Compulsive Disorder: A Case Report

Presenting Author: Guitelle St.Victor-Hamidan, MD

Co-Authors: Jacques Vital-Herne, MD, Damir Huremovic, MD

Purpose: To analyze the potential impact of thyroid and parathyroid endocrinopathies on the clinical course of a patient with bipolar disorder and Obsessive-Compulsive Disorder (OCD), examine some of the challenges faced in the treatment of psychiatric symptoms associated with such medical conditions, and facilitate exchange of ideas among colleagues about similar situations.

Methods: Case report

Introduction: Thyroid and parathyroid disorders present sometimes as comorbid conditions in patients with psychiatric syndromes. If these diseases are promptly recognized, the endocrinologic treatment may contribute to the normalization of the patient's mental status.

Results: We report the case of a 49 year-old female admitted for treatment of agitation, mood lability, anxiety, obsessions, compulsions, suicidal and homicidal ideations. She had a long history of bipolar disorder and OCD, and several prior psychiatric hospitalizations. Her medical history was remarkable for hypothyroidism, hyperlipidemia and renal failure secondary to lithium toxicity. Her renal condition was stable on admission. Her medication regimen included clozapine, quetiapine, escitalopram, clomipramine and triiodothyronine (T3). T3 was discontinued as recommended by an endocrinology consult. Throughout her five-month hospitalization, she remained agitated, labile, with suicidal and homicidal ideations toward staff and family members. Because of elevated calcium levels, the patient was evaluated for parathyroid dysfunction, which was confirmed by imaging studies (CT and MRI). Surgery was contemplated for an ectopic parathyroid mass found in the salivary glands, but it was not performed due to concerns about the patient's psychiatric condition at both our hospital and a referral center specialized in this surgery. The patient was transferred to a long-term psychiatric facility.

Conclusion: This case illustrates the clinical and administrative challenges faced in the treatment of patients with psychiatric illnesses and comorbid medical conditions, specially in a multidisciplinary context. Early diagnosis can lead to timely treatment and reversal of symptoms.

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92. A Pilot Investigation of the Prevalence of Vitamin D Deficiency in Psychiatric Outpatients

Presenting Author: Joshua Straus, MD, FAPM

Background: Vitamin D levels have not been routinely assessed in psychiatric settings, unlike TSH (thyroid stimulating hormone), folic acid and B-12 levels. All consecutive psychiatric initial evaluations by the author performed between September 2008 and August 2009 were reviewed for the presence of a 25-OH vitamin D level obtained within 90 days before or after the initial assessment, along with diagnoses, CES-D (center for epidemiological services scale for depression) and DASS (depression anxiety stress scale) scores. Prevalence data and correlations with CES-D and DASS scores will be presented as preliminary data showing feasibility for a more rigorous case-control design. Recognition of the diverse roles Vitamin D plays in brain health as well as immunity, cancer and bone health make this topic relevant to practicing psychiatrists, especially those working with patients with chronic medical illness. The relevant recent literature will be briefly summarized in support of the hypothesis that

hypovitaminosis D and frank vitamin D deficiency are highly prevalent and easily treatable contributing causes to mood and anxiety symptoms in psychiatric outpatients, with low cost and high value for identification and treatment.

IRB permission for review and abstraction of clinical records post-hoc was obtained, with deidentification of all protected health information.

93. Redefining the Psychosomaticist Role in Delirium: Changing Nursing Perceptions and Practices

Presenting Author: Fatimah A. Tahil, MD, MPH, FAPM

Co-Authors: Michelle Elkins, MD, Rita Dyer, RN

Background: Delirium is frequently undetected in health care settings, and when recognized, occurs late during the patient's hospital course. Requests for a psychosomatic consult arise mostly with the hyperactive subtype of delirium. Despite continuous bedside care, nurses are not accurately and routinely evaluating their patient's cognitive function. With adequate training and education, delirium assessment tools such as the CAM may be utilized effectively for the institution of Protocols for Delirium Prevention and Management.

Method: Day and night shift nurses on a medical unit at a community hospital were administered pre- and post-test on delirium prior to educations seminars led by a multidisciplinary team. Their attitudes and practices regarding delirium, including their perceptions of the role of psychiatrists and use of antipscyhotics for delirium were surveyed utilizing a Likert-scale instrument. Nurses' knowledge, attitudes and practices were again determined within six months. Qualitative data was obtained from focus groups.

Results: Fifty-three nurses attended the educational seminars, and their immediate mean post-test scores (86.9) improved compared to their mean pre-test scores (76.2). Mean post-tests scores declined in their six month follow-up post-test. More than 80 percent nurses reported communications with physicians regarding their findings of delirium, including psychotic symptoms. No significant differences were noted in their practice of suggesting psychiatric consultations for delirium. Overall, their perception of the value of consults improved after the education seminar. Nurses reported that they used antipsychotic PRN medications and non-pharmacologic interventions less.

Conclusions: Findings of this study suggest that nurses' perception and subsequent practices in the treatment of delirium can be changed with the active involvement of the psychosomaticist in collaborative educational efforts. The early generation of psychiatric consults following nurse-physician communications is one of many steps towards effecting change in the hospital setting. Further investigation is warranted to study process changes on a larger systemic level.

94. Depression, anxiety and somatoform disorders in patients treated with dialysis

Presenting Author: Valjbona Tiric Preljevic, MD

Co-Authors: Tone Britt Osthus Hortemo, MD, Inger Hilde Nordhus, MD, Ingrid Os, MD, Toril Dammen, MD

Background: The aim of this study was to estimate the prevalence of depression, anxiety and somatoform disorders in patients with chronic kidney disease in peritoneal dialysis (PD) or haemodialysis (HD).

Method: A total of 109 patients (female 30.3%; mean age, 57.8 ± 15.7 years, dialysis duration mean 8.5 (3.75-22) months, 84 in HD and 25 in PD) were included. Diagnoses of current disorders (criteria met within the past month) were assessed by Structured Clinical Interview for DSM-IV (SCID I) by an experienced psychiatrist.

Results: The prevalence of current depression was 22%, current anxiety disorder 17% and current somatoform disorder 1%. Any psychiatric disorder (other than specific phobia) was diagnosed in 30.3% of the patients. There were no significant differences between HD and PD patients in prevalence of psychiatric disorders, but the sample size of PD patients was low.

Conclusion: The prevalence of current psychiatric disorders when using a structured, physician - administered interview for diagnosis among the patients treated with dialysis was high compared to what has been reported in the general population. The implications of our findings are that identification and treatment of psychiatric disorders should be part of the care provided to both PD and HD dialysis patients.

95. Patient's supportive care need and psychological distress in advanced breast cancer patients

Presenting Author: Megumi Uchida, MD

Co-Authors: Tatsuo Akechi, MD, Toru Okuyama, MD, Ryuichi Sagawa, MD, Chiharu Endo, Hiroko Yamashita, MD, Tatsuya Toyama, MD, Toshiaki A. Furukawa, MD

Objective: The purposes of the study are to report the frequency of unmet need in   advanced breast cancer patients and to investigate the correlation between patient's needs and psychological distress and/or quality of life.

Methods: Participants were randomly selected ambulatory female patients with advanced and/or recurrent breast cancer attending the outpatient clinic of the Oncology, Immunology and Surgery of Nagoya City University Hospital. The patients were asked to complete the self-administered questionnaires which indicated their magnitude of the physical and psychological symptoms and supportive care needs and sociodemographic and biomedical factors at home and return them at the next day. Statistical processing

was done to investigate association between patients' perceived needs and psychological distress and/or quality of life.

Results: Each patient had mean (±SD) 11 (±7.7) and median 10 unmet needs. The prevalence of the most frequent 17 unmet needs was over 50%, and all of these unmet needs items were belonged to the Psychological domain or Health system & information domain. Total score of the SCNS-SF-34 was significantly associated with both psychological distress (HADS total: r=0.65, p<0.01; HADS anxiety: r=0.66, p<0.01; HADS depression: r=0.57, p<0.01) and quality of life (Global Health Status: r=-0.53, p<0.01). Each needs score of the SCNS-SF34, including Psychological, Health system & information, Physical & daily living and Patient care & support Need, were significantly associated with all type of the psychological distress evaluated in the current study (anxiety, depression and total score of HADS).

Conclusion: It is meaningful for medical staff to pay attention to patients' need. Quality of life and psychological distress may be improved if we intervene potential psychological and information unmet needs.

96. Gastrointestinal Illness behavior as related to psychosocial stressors and marijuana use in Complex GI patients.

Presenting Author: Michael Valan, MD, FAPM

Co-Author: Shimul Kumbhani, MD

Purpose: Complex GI programs are often the only hope for treatment of recurrent nausea, vomiting and abdominal pain. Most of the patients are refractory to standard treatments and travel to tertiary/quaternary centers for evaluation and novel treatments. This pilot study aims to obtain information on prior hospitalizations, outpatient prescription opiate use, and marijuana use in patients admitted to a Complex GI service.

Methods: A semi-structured interview was performed by the Psychosomatic Medicine PGY-IV resident on 39 consecutive admissions to the Complex GI service at CPMC. 20/39 patients referred to the study by the hospitalist were enrolled. Reasons for not enrolling in the study included inability to give informed consent, refusal, discharge and readmission. Subject population included all patients admitted to the Complex GI service. The semi-structured interview quantified pre-admission prescription opiate use and duration, marijuana use (MJ), medical diagnoses (i.e. gastroparesis, non-ulcerative dyspepsia, GERD), psychotropic medications, and number of medical admissions during the prior 6 months.. Subjects completed the Beck Depression Inventory, Social Readjustment Rating Scale, and the PAGI-SYM (a disease specific instrument that covers the main symptoms for upper GI disorders: GERD, dyspepsia, and gastroparesis with a maximum score of 100).

Results: There was a significant correlation between psychosocial stressors (SRRS) and gastrointestinal illness behavior (PAGI-SYM) using the Spearman rho statistic (correlation 0.418 , p=0.033 level). Marijuana use was 50% (10/20) with the mean age of marijuana users (37.8) and non users (47.9). Means were calculated for BDI (21), SRRS (269), and PAGI-SYM (56.6). 11/20 subjects were taking multiple antidepressants. 17/20 subjects were taking prescription opiates prior to admission and 9/20 were prescribed multiple opiates. The 20 subjects enrolled accounted for a total of 140 separate admissions (median 4.5,mode 4,mean 7) at outside hospitals during the 6 months prior to admission to the Complex GI service at CPMC.

Conclusions: Gastrointestinal illness behavior is correlated to active psychosocial stressors and subjects were frequently hospitalized prior to referral. Opiates and psychotropic medications are frequently prescribed to this group of patients. Marijuana use is common in this Northern California patient population. Due to the small sample size there was not a statistical difference between MJ use as it relates to BDI, SRRS, and PAGI-SYM. Further investigations with a larger sample are indicated to evaluate the etiology of illness behavior in this patient population

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97. (T) Takotsubo (Stress-Induced) Cardiomyopathy in Post-menopausal Women: a case report and review

Presenting Author: Dustin Yoon, MD

Co-Authors: Aparna Dole, MD, Lilian Gonsalves, MD, FAPM

Background: Takotsubo cardiomyopathy, also called apical ballooning syndrome or stress-induced cardiomyopathy, is an acute and reversible form of systolic dysfunction of the left ventricular mid segments with or without apical involvement. It is frequently precipitated by a stressful event that clinically mimics a myocardial infarction in the absence of coronary artery disease. A review of published case reports show a clear gender predilection, with women accounting for 80-90% of all cases. Post-menopausal women are particularly susceptible to this condition for unclear reasons, but with supportive treatment, prognosis is generally favorable with full functional recovery.

Report: We report the case of a 55-year-old, post-menopausal Caucasian female, who developed severe chest pain after being unexpectedly fired from her job of 21 years. ECG showed T-wave inversions in leads I, aVL, and V3, V4, and V6, and she was initially diagnosed with non-ST segment elevation myocardial infarction (NSTEMI). Subsequent lab studies showed elevated troponins and creatine kinase. Left ventriculography revealed significant apical segment akinesis with ballooning and an ejection fraction of 10-15%. Emergent heart catheterization, however, revealed patent coronary arteries. After excluding all other diagnoses, a more thorough history was taken and a

diagnosis of Takotsubo cardiomyopathy was identified. The psychiatry consult team noted that the patient had significant recent stresses, which predisposed her to the cardiac condition. She was started on benzodiazepines and an SSRI for her anxiety and mood symptoms. One month after discharge she was back to her baseline level of functioning.

Conclusion: Takotsubo cardiomyopathy remains an important diagnostic consideration in patients presenting with acute coronary syndromes without significant coronary artery disease, especially post-menopausal women. It is a reversible cardiomyopathy triggered by psychologically stressful events and may mimic an evolving acute myocardial infarction or coronary syndrome. Thorough history-taking is mandatory for early diagnosis, screening of underlying disorders, and to avoid potential exacerbating interventions. Treatment is mainly supportive and patients may benefit from anti-anxiety medications that lead to full recovery.

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98. (T) Case report: Monorhinous Pseudoanosmia

Presenting Author: Alhumayyd Ziad, MD

Co-Authors: Alan R. Hirsch, MD, Ah Young Kim, MD

Background: Unlike bilateral anosmia, unilateral anosmia usually goes unnoticed, since it has minimal impact on dirhinous perception. A case with a chief complaint of unilateral anosmia in the absence of other rhinal symptoms is described.

Case: This 33 year old left handed male presented with the perception of inability to smell in the right nostril only. The onset was subtle, but he clearly noticed this 4 years ago, after quitting smoking, when he observed his smell improved in his left nostril, but not in his right. Since then he feels he has less than 10% of olfactory ability in the right nostril, without change in response to time of day or external events. He denied olfactory windows, dysosmia, phantosmia, dysgeusia or phantogeusia. His only complaint regarding taste was slight reduced perception of flavor of wine. As a young child a peanut lodged in his nostril, requiring disimpaction in an emergency room. He denied impaired appetite but has intentionally lost 120 pounds over last few years. Psychiatric history and evaluation were normal other than for rare panic attacks. Relevant physical examination findings including neurologic and psychiatric examinations and anterior rhinoscopy were normal. Olfactory testing was normal including dirhinous Quick Smell Identification Test (3/3) and the University of Pennsylvania Smell Identification Test, corrected for age and sex, monorhinously (L: 37, R: 35)

Discussion: This is the first reported case of monorhinous pseudoanosmia. In the absence of any objective olfactory deficit, organic etiologies of this complaint are unlikely. This probably represents a somatic manifestation of an underlying psychiatric disorder including depression, schizophrenia, undifferentiated somatoform disorder, delusional disorder not otherwise specified or conversion disorder. Somatic preoccupation with smell may have induced a focal hypochondriasis with a nidus being the childhood olfactory trauma. This combined with a neurotic hyperacute awareness of his olfactory cycles and associated olfactory variation may have precipitated his symptoms. His healthy behavioral changes (smoking cessation and weight loss) indicate a redirection of his focus of attention from external to the internal sphere. Such attention extended to an excess, may have caused him to be aware of normal physiological phenomena such as olfactory cycles. He thus may be misinterpreting normal olfactory variation of the cycles as anosmia. It remains enigmatic as to why the right nostril is the focus of his complaints but it may revolve around his previous trauma. His lack of acceptance of the normosmic diagnosis hints at the possibility of focal somatic delusional disorder.

99. Undiagnosed Mental Illness in the Emergency Department

Presenting Author: Leslie Zun, MD

Co-Author: Lavonne Downey, MD

Objective: The objective of this study was to identify unsuspected psychiatric illness in patients who present to the ED with non-psychiatric related complaints. A comparison of the test results and ED MD assessments was then compared.

Methods: A convenience sample of consenting and stable patients who presented to the ED with non-psychiatric complaints were given the MINI International Neuropsychiatric Interview (MINI) . It was administered by trained research fellows to the patient during their stay in the ED. Prior to the patient's departure from the ED, the research fellow notified the emergency physician of the results of the MINI interview. A comparison of any change in the treatment after the emergency physician was notified of the diagnosis of the MINI was noted. The study was IRB approved.

Results: A total of 211 patients were enrolled in the study. The majority of patients 55% tested negative of all undiagnosed mental illnesses. The patients that had undiagnosed mental illness was the same or different than the patients without mental illness. The remaining 45% of patients tested positive for undiagnosed mental illness. Out of those that did test positive, none had a history of mental illness. The top diagnoses were as follows: major depression (24%), general anxiety (9%), drug abuse (8%), alcohol (5%), psychotic syndrome (5%), and suicide risk (4%). Of all those patients who tested positive for an undiagnosed mental illness, only patients (2%) were identified by the ED attending. Four percent of the patients tested positive for suicide risk; none of these suicidal patients were found by the ED attending. All attending were notified by the research fellow of the MINI finding if postivie. Despite the notification, only 3 of the 4 of the cases were a mental health worker was contacted to address the patients newly found needs.

Conclusions: The emergency physicians missed many of the patients with mental illness and when notified about this diagnosis did not act upon it. This finding is concerning and the reason for this was not studied

NOTES

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Oral Presentations

Saturday, November 13, 2010

Anxiety/Somatoform Disorders

1. (T) Familial Forms of Anxiety Disorders and their Co-morbidity with Medical Disorders

Presenting Author: Tuong-Vi Nguyen, MD

Co-Authors: Sok S. Lee, BA; Nancy C.P. Low, MD

Background: The rationale to examine medical disorders co-occurring in anxiety disorders derives from studies that have observed an excess occurrence of particular medical disorders among clinical samples. Family studies can help delineate potential mechanisms of co-morbidity by contrasting the rates of medical disorders between familial and non-familial forms of the psychiatric disorders. Some disorders such as migraine are thought to share a common pathophysiology with anxiety disorders, while others such as diabetes are thought to co-occur due to external or secondary factors, such as medications/lifestyle.

Objectives: (1) To examine the association between 4 chronic medical conditions (migraine, asthma, diabetes, and hypertension) and anxiety disorders (panic disorder, social phobia). (2) To examine mechanisms of co-morbidity using the familial and non-familial forms of anxiety disorders.

Methods: Using a large, population-based sample (n=36 984) to which a structured psychiatric diagnostic interview [WHO-Composite International Diagnostic Interview (CIDI)] was administered, this study examined lifetime prevalence of migraine, asthma, diabetes and hypertension in subjects with lifetime history of panic disorder or social phobia. The prevalence of medical disorders was then compared in familial and non-familial forms of panic disorder and social phobia. Chi-square testing and odds ratios with 95% confidence intervals were conducted.

Results: Asthma was associated with panic disorder (OR=1.7-2.3) and social phobia (OR=1.3-1.6). Migraine was associated with panic disorder (OR=2.6-3.3) and social phobia (OR=2.0-2.5). Hypertension (OR=0.7-0.9) as well as diabetes (OR=0.7-0.9) was negatively related to social phobia. When stratifying by family history, asthma was associated to the non-familial form of social phobia (OR=1.3, p=0.027). Migraine was associated to both familial and non-familial forms of panic disorder (OR=1.5, p=0.001; OR=1.4, p=0.001) and social phobia (OR=1.3, p=0.002; OR=1.6, p<0.001). There were no significant associations with hypertension and diabetes.

Conclusions: The above results suggest a role for secondary- or treatment-specific factors in the association between asthma and social phobia, rather than a common pathophysiology. In contrast, migraine and anxiety disorders may share a common pathophysiology. In this study, social phobia was associated with lower rates of hypertension and diabetes; however, under-detection and under-reporting in this community sample may play an important role.

2. Somatic Symptom Burden in Adults with Sickle Cell Disease Predicts Pain, Depression, Anxiety, Health Care Utilization, and Quality of Life

Presenting Author: James Levenson, MD, FAPM

Co-Authors: Aslihan Sogutlu, MD; Donna McClish, PhD; Susan Roseff, MD; Wally Smith, MD

Objective: The PHQ-15 has been extensively studied in primary care, but it has been little studied in diseases causing multiple forms of pain. This study examines how the PHQ-15 performs in adults with such a condition, sickle cell disease (SCD), and measures the impact of somatic symptom burden on pain, depression, anxiety, health care utilization, and quality of life.

Methods: As part of the 2002-2004 prospective cohort Pain in Sickle Cell Epidemiology Study (PISCES) we analyzed the data of SCD patients who both completed at least 1 month of pain diaries and the PHQ-15. Baseline data included demographics, genotype, PHQ scores, and the SF-36. Patient diaries were completed daily for up to 6 months, recording whether the patient was in pain that day or in crisis, the degree of pain on a scale of 0 to 9, and health care utilization for SCD pain. To exclude the common pain sites of SCD subjects, we abridged the PHQ's 15 somatic symptom questions to 11 items. According to their score on this scale we divided subjects into two groups: PHQ score 11 and above, representing high somatic symptom burden, and PHQ score less than 11, representing low burden. We employed chi-square test to assess relationships of somatic symptom burden to categorized variables, and ANOVA or Wilcoxon tests for relationships to continuous outcome variables.

Results: Among N=230 SCD patients, 43 (18.7%) had scores. High somatic symptom burden was significantly more frequent in women than in men (24.6% vs. 9.1%, p=0.0033). Sixty percent of subjects with depression and 15.7% of subjects with anxiety had high somatic symptom burden. Non-crisis pain intensity and percentage of non-crisis pain days were significantly higher in somatizers (p=0.0366 and 0.0011), however mean crisis pain intensity and percentage of pain days did not differ between the two groups. The high somatic symptom burden group's hospitalization, scheduled doctor visits and overall utilization parameters were significantly higher than the low somatic symptom burden group's parameters (p values<0.05). All SF-36 suale measures were significantly negatively correlated with the PHQ-15 scores, even after excluding 4 common pain items (p<0.0001).

Conclusions: Even after excluding common SCD pain complaints, high somatic symptom burden is 1.5 times more prevalent in SCD patients (18.7%), than in primary care. High somatic symptom burden in SCD predicts non-crisis pain rather than crisis pain, and is associated with depres-

sion, anxiety, and poorer HRQOL. It also is associated with increased overall SCD healthcare utilization, specifically hospitalization and scheduled doctor visits.

3. Chronic Subjective Dizziness (CSD): Validation of a Somatoform Syndrome of Persistent Dizziness

Presenting Author: Jeffrey Staab, MD

Co-Authors: Scott Eggers, MD; Brian Neff; Matthew Carlson, MD; Adam Goulson, MD; Neil Shepard, MD

Purpose: Chronic subjective dizziness (CSD) is a somatoform syndrome of persistent dizziness and hypersensitivity to motion stimuli in the absence of active vestibular illness. It was originally defined in 2007 and has been referenced internationally, but never validated. The goal of this study was to investigate the construct of CSD in an independent cohort of patients and compare it to three other neurotologic illnesses in order to identify its unique clinical signs and symptoms.

Methods: Medical records of all patients referred to a tertiary neurotology clinic for persistent dizziness between April 2008 and July 2009 were screened for study inclusion criteria, which consisted of specific elements of clinical and laboratory evaluations by a team of otologists, neurologists, psychiatrists, and vestibular physiologists. A predetermined set of variables including demographics, clinical history, examination findings, and laboratory results was extracted from records of 130 patients with CSD, 49 with Ménière's disease, 63 with migrainous vertigo, and 75 with benign paroxysmal positional vertigo (BPPV). Final diagnoses were made by a consensus conference of investigators using the original definition of CSD and published criteria for the other illnesses. The demographics of patients with CSD as well as rates of co-existing medical and psychiatric conditions were compared to the 2007 study. Key differences between CSD and the other neurotologic illnesses were identified in the data set.

Results: In the CSD group, mean age (mid-late 40s), gender ratio (2:1 female), and prevalence of co-existing medical and psychiatric diagnoses paralleled the original study. Previous vestibular insults, anxiety, migraine, traumatic brain injury, dysautonomias, and dysrhythmias remained in the differential diagnoses of CSD with no difference in rank order by prevalence. Three-quarters of patients with CSD were diagnosed with major or minor anxiety disorders, identical to the original investigation. Each of the diagnostic criteria for CSD was far more prevalent among patients with CSD than among individuals in any other group (a) persistent non-vertiginous dizziness (82% versus <10%); (b) sensitivity to motion of self, (86% versus 22-51%), and (c) sensitivity to visual motion stimuli (95% versus <12%) (All $p<0.05$). Variables that differentiated CSD from the other neurotologic conditions included type and duration of symptoms (continuous dizziness in CSD versus episodic vertigo in other illnesses), presence of peripheral vestibular deficits (highest in Ménière's disease, lowest in CSD and migraine), induction of symptoms by provocative manoeuvres such as hyperventilation or headshake (highest in CSD) and performance on dynamic posturography (poorest in CSD) (all $p<0.05$).

Conclusions: The results of this study validate the construct of CSD as an identifiable somatoform condition. Its three symptom criteria adequately differentiate it from Ménière's disease, migrainous vertigo, and BPPV. It has a distinctive time course and unique pattern of results in vestibular laboratory testing

4. The UK Medical Research Council PACE Trial of Treatments for Chronic Fatigue Syndrome

Presenting Author: Michael Sharpe, MD, FAPM

Co-Authors: Peter White, MD; Trudie Chalder, MD

Purpose: Chronic Fatigue Syndrome (CFS) describes a condition in which a major symptom is chronic disabling fatigue, typically accompanied by many other physical symptoms but not explained by a known medical condition. The cause of this condition is unknown and remains highly controversial. A large number of treatments, both drug and non-drug, have been suggested, although the best available evidence favours non-drug treatments, such as cognitive behaviour therapy and graded exercise, treatments that assume improvements can be made by increasing activity. These treatments remain controversial, however with claims that they are even harmful. A non-rehabilitative treatment that aims to achieve adaptation to disability rather than increased activity, called pacing has been widely advocated but not formally tested.

There is therefore a need for a definitive trial, which will test the effectiveness, and safety of therapies based on behavioural change (cognitive behaviour therapy and graded exercise) and of therapy based on adaption to disability (adaptive pacing) and compare the effectiveness of these with good medical care. Answers to these questions would have both theoretical importance, in addressing the potential reversibility of CFS, and practical importance, in guiding choice of treatments.

Aim: This UK-wide trial aimed to compare the effect of four different non-drug treatments for patients with CFS on fatigue and physical function at 12 months. The treatments were (a) medical care alone, (b) medical care plus adaptive pacing, (c) medical care plus graded exercise therapy and, (d) graded medical care plus cognitive behaviour therapy.

Method: 641 patients with CFS (defined by Oxford criteria) were recruited from consecutive outpatients referrals to CFS clinics in six centres located throughout the United Kingdom. They were randomly allocated to the four treatment groups. The primary outcomes were self-rated fatigue (Chalder fatigue scale) and self-rated physical function (SF-36 physical function scale). Other outcomes included self-rated improvement, anxiety, depression and the performance on walking and step tests.

Results: An intention to treat analysis was performed, including all 641 randomised patients. There was very little missing outcome data. The results are currently being analysed and are anticipated to be available by the time of the APM annual meeting.

Discussion: This is the largest trial of treatments for CFS ever conducted. It informs our understanding of CFS and provides definitive information on the effectiveness and safety of the most commonly used non-drug treatments for this condition.

Cancer and End of Life Care

5. State or Trait?: Longitudinal Depressive Symptom Trajectories in Cancer Patients and Family Caregivers

Presenting Author: Laura Dunn, MD

Co-Authors: Bradley Aouizerat, MD; Bruce Cooper, MD; Christine Miaskowski, MD

Introduction: Depressive symptoms are common in cancer patients and their family caregivers (FCs) and have a negative impact on quality of life (QoL). Most studies of depressive symptoms in cancer have been cross-sectional, leaving gaps in understanding of symptom change over time and in the ability to predict elevated symptom trajectories. Our team has been examining the longitudinal course of depressive symptoms in cancer patients as well as FCs, to identify potential demographic, psychological, and disease-related variables that may predispose to heightened levels of depressive symptoms during and after treatment.

Methods: In two independent samples, we sought to identify latent classes of patients and FCs with distinct depressive symptom profiles, based on Center for Epidemiological Studies - Depression (CES-D) scores. Study 1 consisted of 167 oncology outpatients with breast, prostate, lung, or brain cancer and 85 of their FCs, assessed prior to, during, and after radiation therapy, for a total of seven assessments over six months. Study 2 consisted of 398 women with breast cancer, assessed prior to surgery and at six additional time points over six months. Growth mixture modelling, a newer method of analyzing longitudinal data, was used to identify the latent classes. This method enables the detection of underlying or latent patterns that are not apparent when changes over time in mean symptom scores are examined.

Results: In both samples, the GMM analyses identified four latent classes with distinct depressive symptom trajectories. These classes, named according to the intercept and slope of the trajectory, consisted of the following proportions of participants in each study: Low Decelerating class (Study 1: 56.3%; Study 2: 38.9%), Intermediate Decelerating class (Study 1: 32.5%; Study 2: 45.2%), Late Accelerating class (Study 1: 5.2%; Study 2: 11.3%), and Parabolic class (Study 1: 6.0%; Study 2: 4.5%). Compared to participants in Study 1, those in Study 2 had higher CES-D scores at baseline and over time. Certain demographic variables (younger age and non-white ethnicity in Study 1, and younger age in Study 2) and trait and state anxiety (in both studies) were associated with being classified in the higher depressive symptom classes. In Study 1, the distinct latent classes identified were not dependent on patient or FC status.

Discussion: The findings of these GMM analyses in these two samples were strikingly similar. These findings provide intriguing evidence for the notion that underlying traits influence the incidence, severity, and course of depressive symptoms during and after cancer treatment—in both patients and FCs. Further work examining the bases for these distinct trajectories, and differences among them, is needed. Psycho-oncology research can benefit from latent class methods to help identify those at risk for psychological distress during and after cancer treatments.

6. A Randomized Controlled Trial for Maintaining Quality of Life During Radiation Therapy for Advanced Cancer

Presenting Author: Matthew Clark, PhD

Co-Authors: Teresa Rummans, MD, FAPM; Andrea Cheville, MD; Mary Johnson; Marlene Frost, MD; Janis Miller; Pamela Atherton; Jeff Sloan, MD; Karen Graszer; Lise Solberg Nes, MD; Yolanda Garces, MD; Pamela Netzel, MD; Jean Girardi; Jarrett Richardson, MD; Jean Hanson

Purpose: The primary goal of this study was to evaluate the effectiveness of a six-session structured multidisciplinary intervention and six months of brief telephone counselling on maintaining quality of life (QOL) of patients undergoing radiation therapy for advanced-stage cancer

Participants and Methods: Radiation therapy patients with advanced cancer and an estimated five-year survival rate of 0% to 50% were randomly assigned to either a six-session structured multidisciplinary intervention or standard care. The six 90-minute sessions addressed the five domains of QOL: cognitive, physical, emotional, social and spiritual. The intervention team included psychologists, psychiatrists, advanced practice nurses, certified hospital chaplins, licensed social workers, and physical therapists. The in-person intervention was followed by ten brief telephone-counselling sessions over the next six months. The average age of participants was 58 years old, 63% were male, 97% were white, most were married (91%), and the most common tumor types were gastrointestinal (39%), brain (17%), head and neck (15%), lung (15%), and other (14%). Most were also receiving chemotherapy (86%) and most had prior cancer surgery (92%).

Results: Of the 117 study completers, overall QOL (assessed by FACT-G) at week 4 was significantly higher in the intervention participants (n = 54) compared with the standard arm participants (n = 63), means of 75.2 and 68.7, respectively. At week 26 the participants in both study arms reported having similar QOL, respective means of 77.6 and 77.7.

Conclusion: A six-session structured multidisciplinary intervention was effective in maintaining quality of life of participants receiving radiation therapy for advanced cancer. The provision of ten brief telephone contacts after radiation therapy did not provide any additional quality of life benefits. Future studies should investigate other strategies for impacting long-term quality of life for advanced cancer survivors.

This research builds upon our previous intervention**:** Rummans, Ta, Clark, MM, Sloan, JA, et al: Impacting quality of

life for patients with advanced cancer with a structured multidisciplinary intervention: A randomized controlled trial. J Clin Oncol, 2006, 24; 635-642.

7. Delirium in Palliative Care: Type and Route of Antipsychotic Administration

Presenting Author: Pierre Gagnon, MD

Co-Authors: Pierre Allard, MD, PhD; Bruno Gagnon, MD, PhD; Chantal Mérette, PhD; François Tardif, MSc; Claudia Émond, MSc; Valérie Jomphe, BSc

Purpose: Antipsychotics are central for treatment of delirium in palliative care where it is highly prevalent. The subcutaneous route is often the only practical route in palliative care. While many antipsychotics of the second generation are available, they are only available through the oral route, which compromises their use in palliative care. No large cohort of analysis of antipsychotic administration has been reported to assist in planning further treatment guidelines or research protocols for delirium in palliative care.

Objective: Describe the type and the route of administration of antipsychotics for the treatment of delirium in a cohort of terminal cancer patients.

Methods: 1516 patients admitted in 7 palliative care units in Canada during a three year period (October 2001 to December 2004), who survived longer than 48 hours, were followed prospectively from admission until patients' death (average survival: 21 days; average age: 68.4 years). Demographic data was recorded upon admission. Data on medication were collected daily and doses of antipsychotic were converted in haloperidol equivalent. Second generations antipsychotic were Zypreza, Quietapine and Risperidone. The Confusion Rating Scale (CRS) was used for delirium assessment. Delirium incidence was recorded in 701 patients.

Results: For the total cohort including 1516 delirious and non-delirious patients, a total of 21 800 antipsychotic doses were recorded. Of that number, 20.1% were second generation antipsychotic. Haloperidol was the most frequent used antipsychotic with 41.2% of doses. The oral route was used in 61.4% of doses and the subcutaneous in 35%.

In patients the 701 patients with incident delirium, a total of 14861 antipsychotic doses were recorded. Of that number, 21.9 % were second generation antipsychotic. Haloperidol was the most frequent used antipsychotic with 41.7% of doses and methotrimeprazine with 33.5 % of doses. The oral route was used in 62% of doses, and the subcutaneous in 33.4%. Of these 701 delirious patients, only 68 received antipsychotic exclusively through the oral route compared with 100 through parenteral routes only. The ECOG, age and tumor site were not statistically different between the 2 groups. The mean doses of parenteral doses of first generation antipsychotic were nearly twice as high as from the oral route (2.01mg vs. 1.12; p = 0.002)

Conclusion: Haloperidol remained the most frequently used antipsychotics in palliative care in this Canadian cohort. 20 % of antipsychotic doses were composed of second generation antipsychotics at that period, which would probably be higher in 2010. However, since a third of antipsychotic doses are administered through the subcutaneous route, the role of these new antipsychotics may remain limited in this population until further clinical and pharmacokinetics studies. Patients needing parenteral administration received higher average doses of antipsychotics.

8. Association of Sleep Disturbance with Genotype Profiles of Non-small Cell Lung Cancer Tumors

Presenting Author: William Pirl, MD, FAPMI

Co-Authors: Joseph Greer, MD; Heather Bemis; Emily Gallagher; Jennifer Temel, MD

Purpose: Sleep disturbances are common in individuals with cancer, but their underlying mechanisms are unknown. Exogenous transforming growth factor- alpha (TGF-alpha) causes circadian rhythm disturbances in animal models, and TGF-alpha has been associated with circadian rhythm disturbances in colorectal cancer. TGF-alpha, a ligand of the epidermal growth factor receptor (EGFR) is thought to be involved in the carcinogenesis of some non-small cell lung cancer (NSCLC) tumors and detectable extracellular TGF-alpha varies according to tumor genotype profile. We hypothesized that patients with a tumor genotype profile associated with the absence of extracellular TGF-alpha, individuals with EGFR mutations, would report less sleep disturbance.

Method: Beginning in 8/07 we prospectively screened all consenting new patients at their first visit in the thoracic oncology clinic for depression with the Patient Health Questionnaire-9 (PHQ-9), a validated instrument for depression, which contains one item on sleep disturbance and one item on fatigue. Beginning in 3/09 we prospectively screened stage IV NSCLC patients for genetic mutations, including EGFR, using a multiplexed PCR-based analysis. Patients complete the PHQ-9 before their genotype results are known. Using the first 50 consecutive patients belonging to both screened groups, we examined associations between EGFR status and symptoms using the Wilcoxon Rank Sum Test.

Results: Forty-seven patients had tumor specimens adequate for testing. Mean age was 57.6 years (sd 14.9); 55.3% (26/47) were male; 87.2% (41/47) were white; and 61.7% (29/47) were smokers. Most (91.5%, 43/47) had adenocarcinoma. Twelve (25.5%) had EGFR mutations. There were no significant differences in age, sex, race, performance status, and smoking histories between patients with EGFR wild type and mutations. Patients with wild type EGFR had significantly higher depression scores on the PHQ-9 compared to EGFR mutants (p=. 04). Patients with wild type EGFR were also more likely to meet the cut off for major depressive syndrome (PHQ-9 score of 10 or greater), 31.4% (11/24) compared to 0% (0/12) of those with EGFR mutations (p=. 04). Sleep disturbances and fatigue were greater in patients with wild type EGFR (p=. 04 and p=. 04, respectively). After removing the sleep and fatigue items from the PHQ-9, there was no significant difference in PHQ-9 scores according to EGFR mutation status.

Conclusion: Consistent with the pattern of detectable extracellular TGF-alpha, NSCLC tumors with wild type EGFR are associated with greater sleep disturbance and fatigue. Those two symptoms also appear explain the observed differences in depression in this sample.

9. Natural History of Neuropsychiatric Syndromes in Veteran Hospice Patients

Presenting Author: Linda Ganzini, MD, FAPM

Co-Authors: Elizabeth Goy, PhD

Objective: To determine the prevalence and natural history of delirium, cognitive impairment, alcohol abuse, anxiety, depression, and suicidal ideation in community-dwelling Veteran hospice patients.

Method: Home hospice patients were visited regularly from enrollment until their deaths, study withdrawal, or discharge from hospice. Family caregivers gave consent for those with Mini Mental Status Examination (MMSE) scores < 23. Measures included the Structured Clinical Interview for DSM-IV (SCID) for depression (past and current), and alcohol abuse; the Hospital Anxiety and Depression Scale; MMSE; and Confusion Assessment Method (CAM). A clinician-rated CAM item documented sleep disturbance and participants were asked about suicidal ideation at each visit.

Results: The median length of hospice enrollment was 81 days. Of 103 enrolled, 88 participants were seen within 90 days of death. Seventy-seven (88%) experienced at least one neuropsychiatric syndrome. Cognitive impairment was prevalent, with 60 (68%) registering MMSE < 23 at least once. Over half of participants developed delirium; the proportion with delirium, any cognitive impairment, sleep disturbance or any neuropsychiatric syndrome increased significantly from first to last study visit. Twelve (14%) participants had suicidal ideation during the study; depression affected 30 (34%) overall. Sixteen patients who were not depressed on admission subsequently developed depression. Anxiety was present for 14 (16%) on at least one study visit. Active alcohol abuse remained relatively stable (8%) across visits.

Conclusions: Psychiatric syndromes are highly prevalent in hospice patients. Systematic case finding of psychiatric disorders may be necessary to improve quality of life in the last months of life. Screening for psychiatric disorders only on hospice admission would result in many cases being missed.

Depression/Cardiac Disease

10. Gender Differences in Depression and Anxiety in Response to Cardiac Catheterization

Presenting Author: Vani Ray, MD

Co-Authors: Vishnubhakta Murthy, MD, PhD; Julie Dutcher, LCSW, CSAC

Purpose: Correlation of cardiovascular illness and emotional distress is well documented. However, gender differences in anxiety and depression in anticipation of cardiac catheterization are not known.

Methods: This pilot study was conducted in 100 subjects (54 men) going for cardiac catheterization. Hamilton anxiety (HAMA) and depression (HA) scales were used in 42 subjects (23 men) before catheterization and 58 subjects (31 men) after catheterization but before the results were discussed with them.

Results: All subjects had completed the interview. In the study 70 subjects (40 men) had a score less than 17 while 30 subjects (14 men) had a score of 17 or more. When the data was analyzed by gender, significant differences emerged. In women, there were no differences in the Hamilton Anxiety scores when assessed before or after catheterization. However, in men the scores were similar to those seen in women before catheterization, and were significantly lower after catheterization. Before catheterization 43.5% of men and 36.8% of women had scores of 17 or more while after the catheterization 12.9% of men and 33.3% of the women had scores of 17 or more.

Conclusion: These results show an interesting dichotomy of responses to the stress of cardiac catheterization. Women maintain their anxiety while men seem to reveal very rapid extinction of the anxiety. If confirmed in longitudinal study, these results suggest significant gender differences in the response to anticipatory anxiety to cardiac catheterization.

11. Duloxetine for Depression as a Complication of Bereavement

Presenting Author: John Shuster, MD, FAPM

Co-Author: Michael Hardin, PhD

Purpose: Depression is a common complication of bereavement, and both conditions are associated with substantial morbidity and excess mortality. The primary aim of this study was to evaluate the efficacy of duloxetine for bereavement-associated depression. Secondary aims were to determine the tolerability of duloxetine, its effect on grief, and its effect on health status, pain, and other co-morbid symptoms in patients with bereavement-associated depression.

Methods: This study is an open-label, eight-week, clinical antidepressant treatment trial using duloxetine hydrochloride in recently bereaved patients who demonstrated a major depressive episode resulting from loss. The primary efficacy measure for this study was the 17-item Hamilton Rating Scale for Depression (HRSD-17). Secondary measures included the Texas Revised Inventory of Grief (TRIG), the Prolonged Grief Disorder self-report measure (PG-13), the Mini-Mental State Examination (MMSE), the Edmonton Symptom Assessment System (ESAS), and the SF-12v2 Health Survey (SF-12v2).

Results: Twenty-six patients enrolled in the study, with 18 completing the full 8-weeks of treatment and three additional patients completing study exit measures despite early exit, yielding 21 patients with analyzable data. Three patients

exited early due to side effects, and another five were either lost to follow-up, withdrew consent, or were exited for cause. The participants were predominantly African-American and female with a mean age of 47.4 years. The mean duration between death of a primary relative and study entry was 8.3 months. Mean HRSD-17 score at baseline was 21.5. At study exit, 15 of 21 patients (71.4%) had reached an HRSD-17 score of <7, consistent with clinical remission. Twenty of the 21 who completed study exit measures had at least a 50% reduction in HRSD-17 score, compared to baseline. At study exit, only five of 21 patients had a present grief score on the TRIG within the 95% confidence interval range of norm scores. Physical and psychological co-morbidities showed substantial treatment-associated change, with improvements in all ESAS items, particularly pain, fatigue, drowsiness, anxiety, and overall well-being. SF-12v2 suales showed substantial improvement in Mental Component Summary scores and the Bodily Pain suale at study exit. In-depth statistical analysis of the data set is ongoing.

Conclusions: Duloxetine is an effective treatment for a major depressive episode occurring as a complication of bereavement. Duloxetine treatment was well tolerated in the study sample. Depression and grief are measurable and separate entities. Duloxetine treatment does not appear to reverse grief, but may enable grief processes to progress, as the complication of depression is no longer a hindrance. Duloxetine treatment is further associated with meaningful improvement in overall sense of well-being and reductions in significant co-morbidities, especially pain.

This project was supported by an investigator-initiated research grant from Eli Lilly, and Co. (Lilly grant number FIJ-US-X047).

12. A Collaborative Care Depression Management Program for Cardiac Inpatients:Iimpact on Psychiatric and Medical Outcomes

Presenting Author: Jeff Huffman, MD

Co-Authors: Carol Mastromauro; Emma Lenihan; Gregory Fricchione, MD, FAPM; Gillian Sowden, MD; James Januzzi, MD

Introduction: Patients admitted to the hospital with cardiac disease have high rates of depression, and depression is an independent predictor of morbidity and mortality in many such patients. Despite this, depression goes unrecognized and untreated in the vast majority of hospitalized patients with cardiovascular illness, despite the presence of safe and effective depression treatment. Our goal was to assess the impact of a collaborative care depression management program on psychiatric and medical outcomes over a 6-month follow up period among patients hospitalized for acute heart disease.

Methods: We performed a randomized, single-blind trial of collaborative care depression management, versus usual care, on three cardiac units at Massachusetts General Hospital (MGH) between September 2007-September 2009. Subjects were admitted to MGH with an acute coronary syndrome (ACS), congestive heart failure (CHF), or arrhythmia, and were diagnosed with clinical depression using the Patient Health Questionnaire-9 (PHQ-9).

Enrolling subjects who were randomized to a collaborative care had coordination of their depression care by a social work care manager. The care manager provided patient education, obtained treatment recommendations from a study psychiatrist, informed inpatient and outpatient clinicians about the patient's depression, and attempted to facilitate depression treatment by discharge. After discharge, subjects were evaluated at 2 weeks, 6 weeks, 12 weeks, and 6 months; collaborative care subjects with persistent symptoms received phone-based care coordination from the care manager to address these symptoms and initiate next-step treatment. In the usual care arm, subjects' inpatient and outpatient primary clinicians were informed of the diagnosis of depression, both on enrolment and post discharge if depression persisted.

Between-group differences in outcome variables will be assessed using mixed regression models. Psychiatric outcome variables included depression scores (PHQ-9), rates of depression response, anxiety symptoms, and cognitive symptoms of depression. Medical outcomes included cardiac symptoms and health-related quality of life.

Results: Full results will be available by the November 2010 APM meeting. Overall, 175 subjects were enrolled (collaborative care: N=90; usual care N=85) in the study. Preliminary results suggest that subjects in the collaborative care arm had significant (p<. 05) improvements of depression scores, depression response rates, and mental health-related quality of life, compared to those in the usual care arm. Effects on cardiac symptoms and physical health-related quality of life were mixed, with apparent improvements at some time points.

Discussion: A low-burden, phone-based collaborative care depression management program is feasible to implement on high-turnover cardiac units, and such a program improves depression and mental health-related quality of life outcomes in the vulnerable population of patients with depression and cardiac illness. This is the first implementation of such a program among a broad population of cardiac patients, and the first to initiate treatment in the hospital. Evaluation of a model with more frequent outpatient follow-up may further improve key health outcomes in this important cohort.

13. Screening for Depression and Suicide Risk in the Cleveland Clinic Epilepsy Center (CCEC): Epileptologist Adherence to Depression Treatmtent Guidelines

Presenting Authors: George Tesar, MD and Eloy Franco, MD

Introduction: Depression is the most common psychiatric co-morbidity in patients with epilepsy (PWE). The purpose of this study is twofold: estimate prevalence and severity of patient-rated depression; and (2) examine impact of screening data on provision of guideline-quality depression care.

Methods: Computer-assisted, patient-rated PHQ-9 and Columbia Suicide Screen results were correlated with clinical

data gathered between October 16, 2008 to June 1, 2009. The CCEC screening algorithm requires patients endorsing 1, 2, or 3 on PHQ-9-question-9 to complete the CSS. 228 unique patient-visits were reviewed to determine adherence to depression treatment guidelines judged by (1) documentation-quality, (2) antidepressant medication (ADM) management, and (3) referral for psychiatric evaluation.

Results: 1709 patients completed all PHQ-9 questions. 494 (28.7%) had a total score of > 9, and 192 (11.3%) endorsed 1, 2, or 3 on question-9 and also completed the CSS with 94 (5.5%), 86 (5.0%), 8 (0.5%), and 4(0.2%) endorsing 0 ("*I don't have any thoughts of killing myself*"), 1 ("*I have thoughts of killing myself, but I would not carry them out"),* 2 *("I would like to kill myself"),* or 3 *("I would kill myself if I had the chance"*), respectively. Ten epileptologists evaluated 228 individuals (including a representative sample of 36 with both PHQ-9 > 10 and 0 on question 9). Depression-treatment-guidelines were met in 182 of the 228 visits reviewed (79.8%). Ninety-two patients (40.8%) were already on ADM; 75 (81.5%) continued the same ADM and dosage; 7 (7.6%) had ADM increased, switched or discontinued. Epileptologists started ADM in 10 (7.4%) who were not already on ADM. Forty nine of the remaining 125 were referred for further psychiatric assessment including 4 who were sent to the Emergency Department with one transferred for psychiatric inpatient care; 45 were encouraged to follow-up with their behavioral healthcare providers; the remaining 31 received less-than-guideline-quality care. Of 92 patients already on ADM, dosage was adequate in 51 (55.4%). ADM was modified (i.e., increased, switched or discontinued) in 7 of 41 on sub-therapeutic ADM-doses or continued at the same dose in 34, five of whom failed to receive guideline-quality treatment.

Conclusions: Moderate-to-severe depression was present in 29% whereas significant suicidal ideation occurred in only 12 of 1709 PWE. One patient required psychiatric admission. Epileptologists provided guideline-quality treatment in nearly 80% of visits as judged by documentation-quality and timely psychiatric referral. Nearly 41% with clinically significant depression were already on ADM. However, only 51 (55%) were on adequate ADM dosages, and epileptologists started or adjusted existing ADM in only 7.5% of patients. These data suggest that provision of guideline-quality depression-treatment requires readily available outpatient psychiatric consultation and/or continued training of epileptologists in use of ADM.

14. Depression and Impaired Physical Function after Acute Lung Injury: a 2-year Longitudinal Study

Presenting Author: O. Joseph Bienvenu, MD, PhD

Co-Authors: Elizabeth Johnson, MD; Pedro Mendez-Tellez, MD; Victor Dinglas; Jonathan Sevransky, MD; Nadia Husain; Carl Shanholtz, MD; Cheryl Dennison, MD; Margaret Herridge, MD; Peter Pronovost, MD; Dale Needham, MD

Purpose: Survivors of acute lung injury/acute respiratory distress syndrome (ALI/ARDS) have high prevalence's of depression and impaired physical function after hospital discharge, but the incidence after ALI/ARDS, persistence, and longitudinal inter-relations of these conditions are unclear. We sought to clarify these issues with a 2-year longitudinal study.

Methods: We followed 186 ALI/ARDS survivors in a prospective, longitudinal cohort study with follow-up at 3, 6, 12, and 24 months. The main outcome measures were a Hospital Anxiety and Depression (HAD) depression score ≥8 ("depression") in patients without a baseline history of depression prior to intensive care unit (ICU) admission, and ≥2 dependencies in Instrumental Activities of Daily Living ("impaired physical function") in patients without impairment at baseline.

Results: During 2-year follow-up, the cumulative incidences of depression and impaired physical function after ALI/ARDS were 44% and 66%, respectively, with greatest incidences by 3-month follow-up. The median durations of incident depression and impaired physical function were 6-12 and 9-21 months, respectively. Using discrete-time survival models, invariable predictors of incident depression after ALI/ARDS included impaired physical function at last follow-up, and baseline education ≤12 years, disability/unemployment, and Charlson comorbidity score. In a multivariable model, only lower education significantly predicted incident depression (OR=3.2, 95% CI=1.5-6.6). Invariable predictors of incident impaired physical function included depression at last follow-up, white race, and ICU-related factors (e.g., surgical admission, length of stay, and maximum daily Sequential Organ Failure score >10). In a multivariable model, only depression at last follow-up significantly predicted incident impaired physical function (OR=2.6, 95% CI=1.1-5.9).

Conclusions: New-onset depression and impaired physical function are very common and long-lasting during the first 2 years after ALI/ARDS. Depression is associated with subsequent impairment in physical function, but impaired physical function is not associated with subsequent depression. Treatment of depression after ALI/ARDS may maximize survivors' physical function.

Hepatitis C and Transplantation

15. Ethical Concerns in the Treatment of Hepatitis C with Interferon-alpha and Ribavirin: Excluding versus Treating Patients with Psychiatric Illness

Presenting Author: Rosalind Hoffman, MD, FAPM

Co-Author: Joseph Weiner, MD, PhD, FAPM

Four million people in the United States are infected with Hepatitis C (HCV). Recent studies have found that the prevalence of HCV infection in patients with severe psychiatric illness is 4 to 11 times higher than the general US population (1, 2).

The use of interferon-alpha (IFN) in combination with ribavirin (RBV) to treat HCV has been associated with frequent neuropsychiatric adverse effects including depressive, cognitive, and psychotic symptoms, and less commonly, with suicide (3). Psychotropic medications can be effective in the

management of IFN and RBV-induced neuropsychiatric adverse effects. Nevertheless, physicians have been reluctant to offer IFN and RBV treatment to patients with HCV and comorbid psychiatric illness, because of concerns about exacerbating or precipitating neuropsychiatric symptoms.

It is common practice to perform a psychiatric assessment for patients with HCV who are being considered for IFN and RBV treatment. This often leads to denying treatment to patients who are at high risk for depression, substance use, and psychosis. Recent studies have indicated that patients with comorbid psychiatric illness can be safely treated for their HCV when internists and mental health specialists collaborate in the treatment of such patients (4).

This presentation will discuss the provision of IFN and RBV to all HCV patients, regardless of psychiatric status. Ongoing psychiatric care during IFN and RBV treatment may be considered a more ethical approach, compared to screening then excluding those HCV patients found to be at high risk for psychiatric comorbidity (5). We will discuss the process of assessment and treatment of patients with comorbid HCV and psychiatric illness and the management of IFN and RBV-induced psychiatric symptoms in patients receiving HCV treatment.

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16. Rates of Hepatitis C in Clozapine-Treated Patients with Schizophrenia

Presenting Author: Sanjeev Sockalingam, MD

Co-Authors: Chekkera Shammi, MD; Valerie Powell; Lucy Barker; Gary Remington, MD

Objective: To determine the prevalence rates of hepatitis C in patients with schizophrenia and schizoaffective disorder being treated with clozapine.

Methods: Clozapine-treated outpatients and inpatients were recruited from the Centre for Addiction and Mental Health Schizophrenia Program in Toronto, Canada. All subjects had liver function tests, and positive HCV status was defined as a positive qualitative HCV RNA assay. Subjects completed a self-report questionnaire assessing HCV risk factors, past history of liver disease, previous diagnosis of human immunodeficiency virus (HIV), past hepatitis B virus (HBV) infection and current alcohol use.

Results: 110 subjects participated in the study and the HCV prevalence rate was 2.7%,compared to a 0.8% prevalence rate in Canada. All study subjects had established housing, none reported a history of HIV, and only one patient had a history of HBV infection. A total of 9% drank two or more drinks on a typical day drinking and 7% endorsed having six or more drinks on one occasion at least monthly. Two HCV positive subjects had HCV risk factors, specifically intravenous drug use and intranasal cocaine use. There was no difference between HCV infected and HCV negative subjects on liver function tests.

Conclusions: Our study demonstrates elevated rates of HCV in clozapine-treated patients compared to the general population in Canada. This has been reported as well at other centers in the United States, although at much higher rates. Homelessness and patterns of high-risk behaviour appear to influence HCV rates in this sub-population of patients and should be explored in future studies.

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17. A Polymorphism in the Promoter Region of the Interferon Alpha/Beta Receptor 1 (- 408 C/C) Increases the Risk of Interferon Alpha-induced Depression in Patients with Hepatitis C

Presenting Author: Muhamad Aly Rifai, MD, FAPM

Co-Authors: Douha Sabouni

Background: Psychiatric illness affects patients with Hepatitis C Virus (HCV) infection. The use of antiviral treatment (pegylated interferon-alpha and ribavirin) to clear HCV infection is associated with the development of neuropsychiatric adverse effects. Major depression occurs in a subset (20-30%) of patients receiving HCV antiviral treatment potentially leading to early dose reductions or a shorter duration of treatment, which can adversely affect HCV treatment outcomes. Defining relevant risk factors for depression induced by HCV

antiviral treatment is essential in order to identify prophylactic treatment strategies. Genetic differences in the promoter region of the interferon alpha/beta receptor 1 (IFNAR1) may influence response to HCV antiviral treatments and the risk of developing depression.

Methods: A cohort of 170 patients with HCV infection about to receive pegylated interferon-alpha and ribavirin were prospectively followed. The severity of depression was assessed using the CES-D (Center for Epidemiological Studies Depression Scale) inventory and visual analogue self-report questionnaires administered before and during HCV antiviral treatment (Weeks 0,2,4,6,8,12,16,20,24). Patients were genotyped for a polymorphism (-408) in the interferon alpha/beta receptor 1 (C/C C/T T/T). Kaplan-Meier analyses were used to compare the incidence major depression between different genetic profiles.

Results: Twenty eight percent of patients receiving HCV antiviral treatment developed major depression (47/170; 28.23). The C/C allele was associated with an increased rate of developing major depression (Mantel-Cox log rank test $p < .05$) as well as an increased likelihood of HCV viral clearance ($p = 0.0081$). This difference between groups (depression vs. no depression and Alleles C/C vs. Alleles C/T and T/T) was significant in a Cox regression analysis that adjusted for age, sex, response to interferon alpha treatment, viral genotype, and prior psychiatric history ($X^2=8.02$, df=1, $p=0.005$). The C/T and T/T alleles were protective in terms of the risk of developing major depression ($p= 0.012$).

Conclusion: A polymorphism in the IFNAR1 promoter region increased the risk of developing major depression. This polymorphism that may increase the likelihood of response to HCV antiviral treatments may also increase the risk of neuropsychiatric adverse effects. This will help identify patients who should be targeted to receive prophylactic approaches (antidepressants, psychotropics) to prevent the development of major depression and other neuropsychiatric adverse effects during HCV antiviral treatment.

18. Alcohol Relapse After Liver Transplantation: The Effect of Alcoholism Treatment and AA on Outcome

Presenting Author: Terry Schneekloth, MD

Co-Authors: Sheila Jowsey, MD, FAPM; Adriana Vasquez; Daniel Hall-Flavin; Lois Krahn, MD, FAPM

Purpose: Relapse in alcoholic patients undergoing orthotopic liver transplantation has been associated with poorer long-term survival. More than 40% of alcoholic liver recipients may resume some degree of alcohol use within 5 years. To date, no prospective study has examined the effect of pretransplant treatment and Alcoholics Anonymous (AA) involvement on post transplant relapse. The primary hypothesis of this study was that pretransplant alcoholism treatment and AA attendance would be associated with post transplant abstinence in alcoholic liver transplant recipients.

Method: Beginning October 1, 2004, patients with a DSM-IV diagnosis of alcohol dependence undergoing orthotopic liver transplantation at the three sites of the Mayo Clinic were offered study enrollment. Subjects providing informed consent were enrolled in the study either pretransplant or post transplant with anticipated 10-year follow-up. All patients underwent pretransplant psychiatric assessment and received recommendations regarding addiction treatment and AA involvement. Post transplant data was collected through routine clinical follow-up appointments at 4 months and annually thereafter. Patients received phone calls for post transplant monitoring at 8 and 18 months post transplant. Data collected included alcohol use; smoking and post transplant AA attendance. Statistical analysis consisted of descriptive statistics and Fisher's Exact Tests.

Results: 134 of 224 consented subjects have undergone orthotopic liver transplantation. 113 of the 134 transplanted subjects have provided follow-up data at time points ranging from 4 to 66 months post transplant. They were primarily male (85%) and married (59%). Data was analyzed in two cohorts: all transplanted patients providing data (113) and those with less than two years pretransplant abstinence (62). In the full cohort, 50% received pretransplant alcoholism treatment and 46% attended pretransplant AA. For those with less than two years abstinence, 56% received treatment and 48% attended AA. Only 8/113 (7%) and 7/62 (11%) reported any post transplant alcohol use. Whereas 22/113 (19%) resumed or continued smoking after transplant. Pretransplant treatment, pretransplant AA, post transplant AA, and post transplant smoking were not significantly associated with post transplant relapse. Of note, 48/113 (42%) and 25/62 (40%) continued to attend AA post transplant.

Conclusions: This was a preliminary analysis of prospective data on 134 alcohol dependent subjects who underwent orthotopic liver transplant. In this cohort receiving thorough pretransplant psychiatric assessment, approximately half of the subjects underwent alcoholism treatment and attended AA. The relapse rate was surprisingly low (7%) with a substantial portion continuing with AA after transplant.

19. (T) Early Trajectories of Depressive Symptoms Predict Post-Transplant Survival

Presenting Author: David Chaiffetz

Co-Authors: Andrea DiMartini, MD, FAPM; Mary Amanda Dew, PhD; Mary Grace Fitzgerald, RN-MSN; Paulo Fontes, MD

Depression is a known risk factor for poorer medical outcomes and survival for a number of medical conditions. Thus we were interested in both predictors of depressive symptoms occurring early after liver transplantation (LTX) and their potential contribution to long-term survival. In a longitudinal study we followed 167 patients transplanted for alcoholic liver disease. We assessed symptoms of psychological distress (anxiety-Zung Scale, Depression -Beck Depression Inventory (BDI), stress- Perceived Stress Scale) every three months for the first post-LTX year. Correlations between anxiety, perceived stress, and depression symptoms were high ($r = 0.7$-0.8). Due to collinearity we focused our analyses on depressive symptoms. From the BDI scores we divided subjects into low (0-9.5), mild (9.51-16.5) and high (16.51 and above) depressive symptoms for each of the four time points. Then using cluster analysis we identified

three clusters of trajectories of depressive symptoms within that first year: consistently low distress (group 1 n=95) low distress that rises over time (group 2 n=41) and consistently high distress (group 3 n=31).

We considered psychiatric, demographic, and medical factors as predictors of the depression trajectories. Group 1 was significantly older (mean 52 vs. 47 yrs), more likely to be married, less likely to have had a pre-transplant history of depression or other substance use, less likely to have hepatitis C(HCV), and had more years of heavy drinking. There was no difference between groups on medical variables (transplant hospitalization length of stay (LOS), ICU LOS, Charlson comorbidity index, Model for End-Stage Liver Disease (MELD) score, hepatocellular carcinoma, donor age), psychiatric history variables (alcohol dependence diagnosis, family history, length of sobriety) or demographic variables (gender, race, educational level).

We found that those in BDI groups 2 and 3 (rising distress and consistently high distress) had significantly poor survival beyond the first post-LTX year (χ^2 =17, p=0.001) compared to those in group 1 (consistently low distress) even when controlling for age. In fact at 9.5 years post-LTX the survival rate was 70% for group 1, but only 46% for group 2 and 43% for group 3. Survival was not associated with medical variables commonly associated with poorer survival; LTX LOS, ICU LOS Charlson index, MELD score, HCV, hepatocellular carcinoma, donor age, or gender. Groups did not differ by number or timing of rejection episodes.

In conclusion specific trajectories of moderate to severe depressive symptoms can emerge within the first post-LTX year and are strongly associated with survival. Younger, unmarried patients with HCV and histories of other substance use were more likely to experience these problematic trajectories. This suggests patients with this profile should be monitored and interventions provided. However further research is needed to determine if resolution of depressive symptoms improves long-term survival.

Neuropsychiatry

20. (T) Documentation of Risk Factors for Cardiac Arrhythmias in the Treatment of Delirium with Neuroleptics

Presenting Author: Stephanie Cheung, MD

Co-Authors: Usman Ali, MD; Daniel Safin, MD; Kenneth Ashley, MD, FAPM; Joel Wallack, MD, FAPM; Nancy Maruyama, MD

Objective: Neuroleptics have been a mainstay in the treatment of behavioral and cognitive disturbances associated with delirium. However, neuroleptics can increase the risk of sudden cardiac death. Neuroleptics may prolong QTc, which can cause Torsades de Pointes and potentially lethal arrhythmias. Electrolyte abnormalities, such as hypokalemia or hypocalcemia, and some medications are other risk factors for prolonged QTc. We examined whether Consultation-Liaison Psychiatry consultants documented the EKG before and after advising neuroleptics, and took into consideration common risk factors that prolong QTc when suggesting the use of neuroleptics.

Method: We reviewed all consultations done by resident psychiatrists (PGY 2-6) at a tertiary care teaching hospital in NYC over a ten month period from January to October, 2009. Descriptive statistics and frequencies were analyzed by SPSS 11.

Results: There were 151 consults in which Delirium appeared on Axis I, mean age of patients was 60.4 years (SD=14.4), 53.6% were male. Neuroleptics were advised or already being used in 75.5% (115/151) of the consults. Of those, 42.6% **(**49/115) of the time EKG was documented or advised. In ten of the 49 consults, the QTc recorded was ≥450 msec and in eight of the 10 cases, the consultant advised another EKG.

Potassium level was documented in 86.1% of the cases where neuroleptics were used (99/115); hypokalemia was found only 4% (4/99) of the time. Calcium level was documented in 45.2% of the cases (52/115), but in contrast with potassium, hypocalcemia was found 34.6% (18/52) of the time.

Conclusions: Our data suggest neuroleptics are commonly recommended to manage delirium. About 60% of the consultations failed to record or advise checking an EKG when neuroleptics were involved. There were ten patients for whom we recommended neuroleptics that's QTc was documented and ≥450 msec; we advised another EKG in 8/10 of cases, documented potassium in 9/10 and calcium 6/10. Though rare, the occurrence of cardiac arrhythmias can be fatal. We recommend consultants check baseline EKG and consider electrolyte abnormalities when suggesting neuroleptics for delirium in this population

21. Challenging the Belief that Physicians Can Tell the Difference Between Actual and Standardized Patients: Implications for Testing and Teaching

Presenting Author: J. Michael Bostwick, MD, FAPM

Co-Authors: Lois Krahn, MD, FAPM

Introduction: We were interested in whether residents and faculty could discern actual patients (AP) from standardized patients (SP), whether SPs could convey psychiatric symptoms as effectively as APs, whether SPs could evoke empathy as successfully as APs, and whether participants in a mock oral board examination had preferences over whether APs or SPs could provide a superior educational experience.

Method: Five Actual Patients, 3 simulated patients, 1 videotaped AP, and 1 videotaped SP were deployed for a total of 87 encounters with resident trainees and faculty examiners during a mock oral board examination. Both examinees and examiners were blind to patient status. At the examination's conclusion, all participants were asked to guess which patients were APs, which were SPs.

Results: Examiners guessed correctly 69% of the time (p = 0.0005), but guessed significantly more accurately with APs (85.1%) than SPs (50%). (p = 0.006) Examiners were not significantly better guessers than trainees. (p = 0.584) Some APs were less convincing than others, with APs identified as SPs 0-33% of the time. Some SPs were more convincing than others, with SPs identified as APs 22 -89% of the time. While SP and AP stories were equally believable, one live SP had the most believable story and another the least believable. The least successful patient at conveying his symptoms was actually a videotaped man telling his own story. The most and least successful patients at evoking empathy were SPs, and participants felt more empathy for APs than SPs. (p = 0.032) In terms of educational value, 45% felt that APs offered the best experience, although another 38% were satisfied with either APs or SPs, 12% preferred SPs, and 5% didn't care.

Conclusion: We believe our findings are profound for a literature that assumes physicians can tell APs from SPs, will find APs more convincing in conveying psychiatric symptoms than SPs, and will find more empathy for APs than SPs. Half the time, our faculty mistook SPs for the "real thing", and in terms of both symptom conveyance and empathy, SPs conveyed the most successful portrayals. We find it fascinating that physicians appear to believe they know how APs should present with particular conditions and thus can discern which patients are real, which are not. Could it be that doctors are as "standardized" in their diagnostics as SPs are in their acting and that doctors are more likely to consider a patient deviating from expected medical norms as "faking it"? Even as medical science increasingly identifies empirical bases for such conditions as conversion, somatoform pain, and somatization disorders, these patients are regrettably too often treated as "fakes" because physicians "know" that what they have is not "real".

22. Hospice Enrollment Reduces Symptoms of Anxiety and Depression in Caregivers of Spouses Suffering with Alzheimer's Disease

Presenting Author: Scott Irwin, MD, PhD

Co-Authors: Brent Mausbach, MD; Derek Koo, MD; Joel Dimsdale, MD; Thomas Patterson, MD; Susan Calleran, MD; Susan Roepke, MD; Alexandrea Harmell, MD; Sonia Ancoli-Israel, MD; Paul Mills, MD; Michael Ziegler, MD; Roland von Kanel, MD; Igor Grant, MD

Care giving can be very stressful and is known to increase morbidity and mortality. Among those caring for someone near the end-of-life, anecdotal evidence suggests hospice care may protect caregivers from stress. The current study presents changes in psychosocial and physical outcomes from pre- to post-death of the care recipient among 32 caregivers enrolled in the UCSD Alzheimer's Caregiver Project (UCSD ACP). Of these, 10 caregivers reported utilizing hospice care and 22 reported no such use. We hypothesized that caregivers who utilized hospice care would demonstrate greater improvement in outcomes after the death of their spouse relative to caregivers who did not utilize hospice.

The charts of all caregivers enrolled in the UCSD ACP from 2001 to 2006 (N = 180) were reviewed, and caregivers whose spouse had died were identified. Of these, those with hospice enrollment (n=10) were compared to those without (n=22) for demographic variables and changes from pre- to post-death of their spouse for the following**:** a) heart rate reactivity to stressors, b) blood pressure reactivity to stress, c) depressive symptoms (HAM-D), d) anxiety symptoms (HAM-A), e) avoidance coping, f) positive reappraisal, g) fatigue, h) health symptoms, and i) sleep (Pittsburgh Sleep Quality Index). For all analyses we used an Analysis of Covariance (ANCOVA) with post-death scores as our dependent variable and pre-death scores as covariates.

Analyses of demographics variables indicated that caregivers who utilized hospice were more highly educated (14.18 ± 1.76 vs. 16.1 ± 1.85 years; $t(30)=2.81$ $p<0.01$). No other significant differences in demographics or pre-death scores were found. Results of our ANCOVA analyses indicated significant group differences in post-death HAM-D ($F(1,29)=6.10$, $p<0.05$) and HAM-A ($F(1,29)=5.71$, $p<0.05$) scores. All variables demonstrated an effect size (Cohen's d) between groups of greater than 0.5, except for positive reappraisal and systolic blood pressure reactivity (0.40 and 0.39 respectively).

These data suggest that hospice enrollment may relieve caregivers of the detrimental psychological and physiological effects of losing a spouse with Alzheimer's disease. These pilot data also suggest that further prospective investigation is warranted.

23. A Comprehensive Approach for the Management of CNS Pharmacotherapy

Presenting Author: José Maldonado, MD, FAPM

Delirium is the most common psychiatric syndrome found in the hospital setting. Because its etiology is often multifactorial it is equally likely that any approach to prevention and treatment will also require a multisystem approach. Similarly, given that Psychosomatic Medicine specialists taking care of delirious patients are consultants to various primary medico/surgical team's delirium management tactics must take into consideration the primary team's unique approach to treatment.

At Stanford we put together a truly multidisciplinary team with key players in the ICU service, including critical care, pulmonary, anaesthesia, neurocritical care, pharmacy, nursing, pain management, and psychosomatic medicine in an attempt to improve the management and quality of care of intensive care patients. Together we developed a set of "CNS-Pharmacotherapy Guidelines" which contain several specific modules or protocols- each created by the member of their specific organ system teams, after extensive review of the literature, and exhaustive input from members of the other teams.

The result was a series of modules designed with the intent of (a) providing adequate prophylaxis for commonly encountered neuropsychiatric problems in the ICU , such as improving pain management, addressing potential neuropsychiatric side effects of the ICU environment [e.g., sleep deprivation, anxiety], instituting daily awakening routines, and minimizing the development of delirium, while (b) developing robust pro-

tocols to adequately address unavoidable ICU complications, such as differentiating the various sources of agitation (from substance withdrawal to delirium), pain management algorithms, and the management of neurological and psychiatric syndromes common to the ICU environment.

This lecture will review the multidisciplinary team's finding and provide a review of the protocols being implemented at Stanford Hospital Intensive care Units.

24. Comparison of Predictors of Post-Operative Delirium between Hip Fracture Repair Patients with and without Pre-operative Dementia

Presenting Author: Hochang Lee, MD

Co-Authors: Simon Mears, MD; Paul Rosenberg, MD; Frederick Sieber, MD

Background: Delirium is a common neuropsychiatric complication (up to 44%) after hip fracture repair and is associated with greater morbidity and mortality, longer length of hospital stay and greater institutionalization after surgery. Pre-operative cognitive impairment is the most consistently significant risk factor for post-operative delirium, but no previous study has examined if different risk factors are associated with post-operative delirium between patients with and without dementia. By conducting a stratified analysis based on pre-operative dementia status, we compared perioperative risk factors on a large sample of hip fracture repair patients with and without pre-operative dementia.

Design and Setting. A prospective cohort study based in an academic medical center.

Participants: 425 consecutive non-delirious patients (age**:** 80.2 +/- 6.8; female: 73.2%; "probable dementia": 33.1%) admitted to the multi-disciplinary hip fracture repair service.

Methods: All participants were assessed for delirium before the surgery and daily from the second postoperative day until hospital discharge by a trained research nurse using the Confusion Assessment Method (CAM) and Mini-Mental State Exam (MMSE). Those with pre-operative delirium were excluded from the study. Pre-operative "probable dementia" status was determined based on documented history of dementia or MMSE score < 24 during the pre-surgical evaluation by a geriatrician. The primary outcome variable was incident delirium after hip fracture repair according to CAM at any time during the post-operative hospitalization period.

Results: Overall, 147 (34.6%) out of 425 patients developed incident delirium after hip fracture repair. Pre-operative "probable dementia" (OR: 3.35; 95% CI = 2.19, 5.12) was the strongest predictor of post-operative delirium among all *peri*-operative variables. Among patients without pre-operative dementia (n = 284), age (OR: 1.05; 95% CI = 1.01, 1.09), male gender (OR: 2.11; 95% CI = 1.19, 3.74), lower BMI (OR: 0.93; 95% CI = 0.87, 0.99), history of CHF (OR: 2.07; 95% CI = 1.11, 3.86), atrial fibrillation (OR: 2.06; 95% CI = 1.13, 3.77), peripheral vascular disease (OR: 2.66; 95% CI = 1.27, 5.57), and having more than two units of blood transfusion perioperatively (OR: 2.66; OR: 1.36, 5.21) were associated with post-operative delirium. In contrast, among patients with pre-operative "probable dementia," none of the above risk factors were significantly associated ($p>0.05$) with post-operative delirium.

Conclusions: Pre-surgical determination of dementia status is important for risk stratification for post-operative delirium. Identification of patients at high risk for delirium and development of targeted prevention and intervention strategies are of public health significance.

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Surgery and Hospital Care

25. Cooperation between C/L Psychiatrists in a general hospital and General Practitioners in Private Practice - A Randomized Controlled Trial

Presenting Author: Albert Diefenbacher, MD, PhD, FAPM

Co-Authors: Diana Lehmann; Brian Barrett, MD; Ronald Burian, MD

Background: Little is known about the long-term effect of recommendations given by C/L- psychiatrists during inpatient treatment in general hospitals once patients have been discharged into primary care treatment. This study aimed to find out whether improving communication between C/L psychiatrists in general hospitals and general practitioners in private practice by a telephone call or a written note results in a higher degree of concordance to such recommendations, and if so, whether any long-term impact on treatment and outcome can be found.

Method: Controlled randomized trial of n = 117 general hospital inpatients with depression and/or anxiety disorder. Patients were divided into two intervention groups. Group A: the C/L psychiatrist made 5-10 min. telephone calls to each patient's GP. Group B: a written letter was handed to patients to be given to their GPs. Control group: GPs were simply sent a discharge letter by the attending hospital physician, as is the usual procedure. A telephone follow up of patients took place at 6 weeks, 6 and 12 months, and 4 years after discharge. Follow-up included the assessment of patients' Hospital Anxiety and Depression Scale (HADS) score.

Results: Follow-up calls succeeded in reaching 91 patients six weeks after discharge declining to 36 patients after four years. GP´s concordance to CL-psychiatrists recommendations was significantly best in the telephone call group. It was found that HADS scores improved after 6 weeks with a positive correlation of better GP´s concordance and patient's depression scores. But HADS scores worsened again over time in the majority of patients.

Conclusions: A telephone call seems to be an effective communication tool to initiate psychiatric treatment in the primary care setting, with general practitioners following psychiatrists' recommendations to a significantly higher degree than those receiving recommendations in writing. However, the improvement of HADS scores disappeared over the long term, and no statistically significant difference could be demonstrated between patients whose GP´s had a higher or lower degree of concordance to the single intervention over time. The overall results suggest that introducing collaborative care models would be advisable.

26. The Severity Of Ethanol Withdrawal Scale (SEWS): A New Scale For Use In the General Hospital

Presenting Author: Thomas Beresford, MD, FAPM

Co-Authors: Brandon Schmidt; Brian Pitts; Kim McFann, MD; Melver Anderson, MD

Background: Consultation psychiatrists frequently face the clinical danger of ethanol withdrawal, one that can be mitigated when recognized early. Five of the ten items rated by the CIWA-A, commonly used as a withdrawal measure in healthcare settings, aim at late withdrawal. We devised the Severity of Ethanol Withdrawal Scale (SEWS) in order to focus on early withdrawal weighted by six of eight items. We report here our first experience with systematic application of the SEWS, in a setting where no withdrawal scale had been used before, and compare that to CIWA-A data, from regular use in a separate setting in our hospital, all in an effort to assess the quality of care in alcohol withdrawal treatment at our institution.

Methods: The SEWS was made available to the nursing and medical teams of the Intensive Care Units at our federally supported hospital; prior to its use ethanol withdrawal recognition was done clinically by team members. The CIWA-A was in concurrent use on a psychiatric ward in the same hospital. Computerized versions of each were administered by nursing personnel when admitting patients to the respective sites. With institutional approval the de-identified cross-sectional data for serial admission during the same four month period were recovered, recorded, and stored for analysis. Independently, the SEWS (n=84) and CIWA-A data (n=165) underwent factor analysis performed by a statistician at our affiliate institution.

Results: The SEWS data yielded a two-factor solution with Promax rotation to allow for correlated factors: most items loaded on Factor 1. Analysis of the CIWA-A suggested three factors, indicating that more than one construct was being measured. Early symptoms loaded on Factors 1 and 3, while late symptoms loaded primarily on Factors 2 and 3. Further factor analysis results with early versus late symptoms on the CIWA-A showed no clear relationship between factors and symptom onset. The same comparison on the SEWS, however, found that five of the six early symptoms, all except clinically evident agitation, loaded primarily on Factor 1 while the late symptoms of disorientation and hallucinations loaded on Factor 2.

Conclusions: These early experience data suggest that the SEWS may be more effective in recognizing early alcohol withdrawal clinically. Prospectively designed research methods can test the hypothesis generated from this experience and may lead to improved treatment of ethanol withdrawal.

27. (T) The Association of Comorbid Depression with Hospitalization for Medical Illnesses in Patients with Diabetes: A Prospective Cohort Study

Presenting Author: Dimitry Davydow, MD

Co-Authors: Joan Russo, PhD; Wayne Katon, MD, FAPM; Paul Ciechanowski, MD, MPH; Elizabeth Lin, MD, MPH; Evette Ludman, PhD; Carolyn Rutter, PhD; Bessie Young, MD, MPH; Malia Oliver, BA; Michael Von Korff, ScD

Objective: Few studies have examined whether comorbid depression independently increases risk of hospitalization for medical illness among diabetic patients, and to our knowledge, no studies have examined whether depression independently increases risk of intensive care unit (ICU) or coronary care unit (CCU) admission. Our investigation examined whether baseline symptoms suggestive of major depression in a cohort of diabetic patients were independently associated with an increased risk of hospitalization for medical illness, even after controlling for baseline demographic and clinical characteristics. We also examined the association of baseline depressive symptoms and the total number of days hospitalized for medical illness over a 3 year period.

Method: Data from the 5 year Pathways Epidemiologic Follow-Up Study was used to evaluate a prospective cohort of 3,596 patients with diabetes. We excluded data for the initial 2 years from time of enrollment to control for depression secondary to acute medical conditions and/or the downward trajectory of severe medical illness. We assessed baseline symptoms suggestive of major or minor depression with the Patient Health Questionnaire-9. We controlled for baseline demographic information, and baseline clinical and self-care characteristics such as smoking, BMI, activity level, hemoglobin A1C, non-diabetic medical comorbidities, diabetes complications, type 1 diabetes diagnosis, diabetes duration, and treatment intensity. We assessed time to any hospitalization for medical illness, time to ICU admission, and/or time to CCU admission using Cox proportional-hazards regression. We used zero-inflated negative binomial regression to examine associations between baseline depressive symptoms and total number of hospital days over the 3 year period.

Results: Approximately 19% of diabetic patients had baseline symptoms suggestive of major (11.2%) or minor depression (7.9%). Unadjusted analyses revealed that baseline symptoms suggestive of major depression were associated with increased risk of any hospitalization (Hazard Ratio (HR) 1.40, 95% Confidence Interval (95%CI)(1.18-1.66)) and increased risk of ICU admission (HR 1.84, 95%CI(1.33-2.56)), but were not associated with increased risk of CCU admission. After controlling for demographics, clinical, and self-care characteristics, baseline symptoms suggestive of major depression remained associated with increased risk of

any hospitalization (HR 1.45, 95%CI(1.18-1.77)) and were strongly associated with increased risk of ICU admission (HR 2.06, 95%CI(1.40-3.05)). Baseline symptoms suggestive of major depression were associated with a greater number of hospital days for medical illnesses over the 3 year period (Incremental Relative Risk 1.36, 95%CI(1.05-1.78)), even after adjusting for demographic, clinical and self-care characteristics. Symptoms suggestive of minor depression were not associated with increased risk for hospitalization or with total hospital days.

Conclusions: Patients with diabetes and comorbid depression face an increased risk of hospitalization for medical illness, and are at particular risk for ICU admission. Efforts targeted toward improving depression treatment in patients with comorbid diabetes could lead to reduced healthcare costs and mortality.

28. (T) Behavioral Intervention Team Reduced Length of Stay in General Medicine Units

Presenting Author: Gabriela Balf-Soran, MD

Co-Authors: Paula Zimbrean, MD; Rani Desai, PhD, MPH; Paul Desan, MD, PhD; William Sledge, MD

Background: Psychiatric and substance abuse diagnoses are associated with longer length of stay (LOS) and higher readmission rates in patients admitted to general hospitals. We tested whether a multi-disciplinary intensive mental health services would improve LOS and readmission rates.

Methods: Three general medical units of a large tertiary academic medical center were provided with “Behavioral Intervention Team (BIT)” services. The innovative features of BIT were rapid identification of mental health-related problems, immediate focusing on psychiatric needs and an aggressive, problem-solving approach to disposition. The team was comprised of a psychiatric APRN, a social worker and a clinical nurse manager, working in collaboration with attending psychiatrists and trainees on the general Psychiatric Consult Service. The referral sources were: review of all admissions with the medical treatment teams, review of constant companion (sitter) usage, and notification regarding patients transferred from the affiliated psychiatric hospital. The outcomes were measured over 4 months in 2009: length of stay (LOS), readmission rate within 30 days, and number of days denied by insurances (Avoidable Days) for patients with and without comorbid psychiatric or substance abuse diagnoses. These measures were compared to a similar 4-month period in 2008.

Results: Over the studied periods on the target units, there were 1955 discharges (54% with psychiatric diagnoses) in 2008 and 2109 (50% with psychiatric diagnoses) discharges in 2009. Among all patients, mean LOS decreased from 5.57 ± 0.15 days in 2008 to 5.30 ± 0.18 days in 2009 (difference significant at p=0.0005, Wilcoxon Two-Sample test). Among patients with psychiatric diagnoses, mean LOS decreased from 5.61 ± 0.19 days in 2008 to 4.99 ± 0.22 days in 2009 (difference significant at p=0.0001, Wilcoxon Two-Sample test).

Among all patients, the costliest LOS bracket, >6 days interval, yielded significant decrease from 24.7% in 2008 to 20.7% in 2009 (χ^2 = 9.43, p=0.002). Among patients with a psychiatric diagnosis, 18.5% of discharges in 2009 had a LOS > 6 days, compared to 25.9% in 2008 (difference significant at χ^2 = 16.32, p=0.0001,) while there was no significant difference among patients without psychiatric diagnoses (10.8 % vs. 11.3 %]. Among patients with a psychiatric diagnosis, the readmission rate in 2009 was 11.2% compared with 13.7% in 2008 (trend value p=0.08, χ^2 = 3.07), while there was no significant difference among patients with no psychiatric diagnosis (11.8% vs. 11.5%).

The Annualized Total Avoidable Days on the three target units dropped by 67%, from 136 to 44 days.

Conclusion: A multi-disciplinary mental health team presumably reduced the length of stay, rates of readmissions and number of denied days by insurances for patients admitted to general medical units, with the chief effects being exerted on patients with psychiatric or substance abuse diagnoses .

29. Alcohol Use Disorders After Bariatric Surgery

Presenting Author: Joji Suzuki, MD

Co-Authors: Florina Haimovici, MD; Grace Chang, MD, MPH

Background: Evidence points to obesity and alcohol use disorders (AUD) sharing similar clinical manifestations and disruptions in brain neurocircuitry. While studies show an inverse correlation between weight and alcohol use, it is unclear if weight loss after bariatric surgery is associated with an increase in alcohol use. This study aimed to 1) estimate the prevalence of current and lifetime AUD and other Axis I diagnoses in individuals who underwent bariatric surgery, and 2) compare weight loss between individuals with and without a current AUD.

Methods: Forty two individuals who underwent bariatric surgery were interviewed using the Structured Clinical Interview for DSM-IV. Where appropriate, chi-squared and t-tests were performed.

Results: We found a prevalence of lifetime and current alcohol use disorder (AUD) of 40.5% and 11.9%, respectively, and a prevalence of lifetime and current binge eating disorder (BED) of 64.2% and 26.2%, respectively. The primary outcome, weight loss following surgery, was not associated with either current or lifetime histories of AUD. Furthermore, weight loss was not associated with any of the other Axis I diagnoses. The mean weight loss was 104.21 lbs (SD 50.23, range 22-294), and the mean time since surgery was 41 months (SD 5.1, range 31-40). Type of surgery (Gastric Bypass) was significantly associated with a current diagnosis of AUD (χ2=7.08, p<0.01). None of the subjects who underwent the Lap-Band procedure met criteria for current AUD. All subjects meeting criteria for current AUD had a prior history of AUD that was in full remission at the time of the presurgery evaluation.

Conclusions: Individuals undergoing bariatric surgery were found to have a high lifetime prevalence of both alcohol use disorders and binge eating disorders. Results indicate that weight loss following surgery was not associated with the development of AUD or any other Axis I diagnoses examined. For those individuals with a lifetime history of alcohol use disorder, undergoing gastric bypass instead of lap-band was associated with the development of a current alcohol use disorder. Implications for pre-surgery psychiatric evaluations as well as ongoing monitoring of bariatric patiets will be explored.

Webb Fellows

30. The Acute Effects of Atrial Fibrillation on Cognitive Function: A Randomized Study of Cognition Pre- and Post-Cardioversion

Presenting Author: Anne F. Gross, MD

Background: Atrial fibrillation (AF) is the most common cardiac arrhythmia, and its prevalence increases with age. AF is strongly associated with an increased risk of thromboembolic events and recent studies have demonstrated that AF may even increase the likelihood of developing cognitive dysfunction in patients without stroke.

Objective: We sought to assess the difference in global cognitive function before and after cardioversion for AF.

Methods: All patients above the age of 65 undergoing electrocardioversion for AF at the Massachusetts General Hospital who consent to the study, speak English, and do not have a history of stroke or dementia will undergo cognitive testing (using the 100-point MMSE and Trails B tests) and anxiety assessment (Hospital Anxiety and Depression Scale- Anxiety subset) 30-60 minutes before and 45 minutes after cardioversion. Clinical characteristics (e.g., a history of hypertension, congestive heart failure, diabetes mellitus, hyperlipidemia) as well as vital signs, results of an EKG, and a list of medications used that may adversely impact cognitive status will be recorded.

Results: The pre- and post-cardioversion results of cognitive testing and anxiety screening will be compared as will the scores obtained by patients successfully and unsuccessfully cardioverted (i.e., our control group).

Conclusion: While the etiology of cognitive impairment associated with AF is not entirely clear, potential mechanisms include microembolic phenomenon and hypoperfusion of the CNS. Successful cardioversion may improve CNS perfusion and improve cognitive function.

31. Psychosocial Factors and Hematopoietic Stem Cell Transplantation: Clinical Outcomes and Biological Mechanisms

Presenting Author: Jennifer M. Knight, MD

Multiple psychosocial factors have been shown to affect cancer progression in various populations; however, research investigating this relationship following hematopoietic stem cell transplantation (HSCT) is much less well established. Subject to unique and severe immunological and psychological conditions, HSCT patients are especially vulnerable to adverse psychosomatic health sequelae. Our study purpose was threefold, to examine: whether baseline psychometric data would predict time to neutrophil recovery (measured by days to engraftment, or DTE); whether psychosocial factors would be associated with cytokine levels; and whether lower cytokine levels would be associated with fewer DTE.

Sixty-five adults undergoing HSCT for any reason participated in this study. Pre-transplant measures included perceived locus of control, coping styles, social support, optimism, anxiety, and religiousness/spirituality. Interleukin (IL)-1a, IL-6, and tumor necrosis factor (TNF)-a levels over the first 14 days post-transplant, and DTE were assessed.

The COPE-S emotional support ($p<.05$) and substance abuse ($p<.001$) suales were negatively associated with DTE while religiousness ($p<.05$) was positively associated. For the Perceived Social Support scale, tangible support ($p<.001$) was negatively associated and emotional support ($p<.001$) positively associated with DTE. Participants who placed a greater locus of control in their physician had significantly fewer DTE ($p<.001$) whereas those who placed more control in other people took longer to engraft ($p<.001$). Higher levels of optimism were associated with shorter engraftment time ($p<.01$).

Substance abuse predicted lower levels of IL-1a ($p<.05$), IL-6 ($p<.001$), and TNF-a ($p<.001$). Those who endorsed less tangible support also had higher levels of IL-1a ($p<.05$), IL-6 ($p<.001$) and TNF-a ($p<.001$). Those reporting more emotional support also had lower IL-6 levels ($p<.001$). Cytokine levels were not predictive of DTE. Our findings are the first to indicate that psychosocial factors predict time to neutrophil recovery and cytokine levels in HSCT recipients.

32. Attachment Styles of Oregonians Who Request Physician-Assisted Death

Presenting Author: Robert L. Oldham, MD

Objective: Qualitative analyses suggest that requests for physician-assisted death (PAD) may often be the culmination of a person's lifelong pattern of concern with issues such as control, autonomy, self-sufficiency, distrust of others, and avoidance of intimacy. Such characteristics may be measured by attachment style. We compared family members' reports of attachment style in Oregonians who did and did not request PAD.

Method: Eighty-four family members of terminally ill patients who requested PAD before death and 63 members of a comparison group that included family members of terminally ill Oregonians who died without requesting PAD rated their loved ones' attachment style in a one-time survey.

Results: Individuals who requested PAD were most often described as having dismissive personality styles (56%) compared to 41% of comparison individuals and on continuous measures of relational style, the highest mean score

among PAD requesters was for dismissive style. There were marginally significant differences in the proportions of each attachment style when comparing the two groups (p = 0.08).

Significance of results: Patients' attachment styles may be an important factor in requests for PAD. Recognition of a patient's attachment style may improve the ability of the physician to maintain a constructive relationship with the patient throughout the dying process.

33. The Spectrum of Voltage Gated Potassium Channel Antibody-Associated Neuropsychiatric Disorders

Presenting Author: Kristin J. Somers, MDs

Objective: To describe a neuropsychiatric spectrum of voltage-gated potassium channel complex (VGKC) autoimmunity.

Method: Among 6,814 Mayo Clinic patients evaluated for neurological autoimmunity in a 13 month period, we identified those seropositive for a VGKC complex autoantibody, and reviewed demographic information, clinical findings, laboratory data, treatment, and outcomes for patients with a neuropsychiatric presentation. We compared the neuropsychiatric symptom frequency among those with high, medium, and low antibody values.

Results: For 27 patients with florid neuropsychiatric presentations, symptoms included: confusion, 93%; memory impairment, 78%; personality change, 56%; depression, 41%; and anxiety, 30%. Eleven (40%) were diagnosed as limbic encephalitis; 2 were initially assigned a primary psychiatric diagnosis but were later reclassified as neuropsychiatric autoimmunity. Of 17 who received immunotherapy, 17 (71%) improved. Improvements were most evident in those treated early (p=0.004). For 40 patients with milder presentations, symptoms included: depression (40%), memory complaints (25%) and confusion (20%). Four of these patients received immunotherapy; none improved. Neuropsychiatric presentations were significantly associated with higher VGKC complex autoantibody values (p=0.022), particularly florid decompensation (p=0.020).

Conclusions: Neuropsychiatric accompaniments of VGKC complex autoimmunity are diverse and include affective-predominant presentations. Neuropsychiatric disorders with an autoimmune basis are usually distinguishable from other neuropsychiatric disorders by subacute symptoms, features atypical for a primary psychiatric disorder, a personal or family history of autoimmunity or cancer, and an informative autoantibody profile.

34. Northern Exposure: Curriculum Development for a Psychosomatic Medicine Fellowship at the University of Toronto

Presenting Author: Adrienne Tan, MD

Limited opportunities are currently available in Canada for clinical fellowships in psychosomatic medicine. Moreover, this subspecialty of psychiatry is not yet officially recognized by the Royal College of Physicians and Surgeons of Canada. Fellowship training programs are a vital part of the future of consultation-liaison psychiatry. Fellowship training involves more than the acquisition of medical expertise: it also involves the establishment of a cohesive professional identity that encompasses and integrates non-cognitive with cognitive capacities. Based on the CanMEDS framework, these non-cognitive capacities or "roles" include that of professional, collaborator, communicator, manager, and health advocate — "roles" which are often not well addressed throughout medical training.

We are currently developing a consultation-liaison psychiatry fellowship curriculum at the University Health Network, a teaching hospital that is part of the University of Toronto. This fellowship will focus on fostering lifelong learning in psychosomatic medicine as well as the aforementioned non-cognitive capacities that we believe to be essential to professional development and identity formation. The following principles will form the foundation of the curriculum: reflective practice, interprofessional education, relationship-centred care, mentorship, and an evolving curriculum. We propose that fellowship training offers a framework that encourages continuing professional development and that it is the beginning of the process of becoming a consultation-liaison psychiatrist rather than a "final destination."

Dlin/Fischer Award

For Significant Achievement In Clinical Research

Comorbid Depression is Associated with an Increased Risk of Dementia Diagnosis in Patients with Diabetes: A Prospective Cohort Study

Presenting Author: Wayne Katon, MD, FAPM

Co-Authors: Elizabeth Lin, MD, MPH; Lisa Williams, MD, MS; Paul Ciechanowski, MD, MPH; Susan Heckbert, MD, PhD; Evette Ludman, PhD; Carolyn Rutter, PhD; Paul Crane, MD, MPH; Malia Oliver, BA; Michael Von Korff, ScD

Background: Both depression and diabetes have been found to be risk factors for dementia. This study examined whether comorbid depression in patients with diabetes increases the risk for dementia compared to those with diabetes alone.

Methods: We conducted a prospective cohort study of 3837 primary care patients with diabetes (mean age 63.2 + 13.2 years) enrolled in an HMO in Washington State. The Patient Health Questionnaire (PHQ-9) was used to assess depression at baseline and ICD-9 diagnoses for dementia was used to identify cases of dementia. Cohort members with no previous ICD-9 diagnosis of dementia prior to baseline were followed for a 5-year period. The risk of dementia for patients with both major depression and diabetes at baseline relative to patients with diabetes alone was estimated using cause-specific Cox proportional hazard regression models that adjusted for age, gender, education, race/ethnicity, diabetes duration, treatment with insulin, diabetes complications, nondiabetes-related medical comorbidity, hypertension, BMI, physical inactivity, smoking, HbA_{1c}, and number of primary care visits per month.

Results: Over the 5-year period, 36 of 455 (7.9%) patients with major depression and diabetes (incidence rate of 21.5 per 1000 person-years) versus 163 of 3382 (4.8%) patients with diabetes alone (incidence rate of 11.8 per 1000 person-years) had one or more ICD-9 diagnoses of dementia. Patients with comorbid major depression had an increased risk of dementia (fully adjusted hazard ratio 2.69, 95% CI 1.77, 4.07).

Conclusions: Patients with major depression and diabetes had an increased risk of development of dementia compared to those with diabetes alone. These data add to recent findings showing that depression was associated with an increased risk of macrovascular and microvascular complications in patients with diabetes.

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