

mania with or without psychotic symptoms (ICD-10: F30.1, F30.2; Bipolar I Disorder, single manic episode, in DSM-IV-TR Criteria: 296.01–296.06). HS where evaluated to discard previous or current neurological or psychiatric disease. Following data was collected from the whole sample: performance in Cognitive Status Examination (COGNISTAT), Trail Making Test A and B (TMT-A/TMT-B), as well as in the Frontal Assessment Battery (FAB). Fractional anisotropy (FA), obtained by a 3 tesla GE MRI system at the Neuroradiology Unit of NINN was obtained per participant. Correlation between participants FA, as white matter integrity marker, along with scores in cognitive performance is reported with inferential statistics analysis.

Results: We report no significant differences regarding age ($p = 0.307$), sex ($p = 1.00$) or scholastic level ($p = 0.503$) in patients group and HS group. Patients present alterations in integrity in these fascicles: right and left corpus callosum, right and left uncinate fasciculus (both, their frontal portion); left uncinate fasciculus (insular portion); left and right corpus callosum (minor forceps), and left cingulum, posterior portion. In FAB, executive motor function, showed significant difference in between groups ($p = 0.006$) and so did in inhibition tests ($p = 0.010$), HS performed better; also in COGNISTAT calculus score, $p = 0.081$.

Conclusions: Correlation between the scores in cognitive tasks and alterations in tract integrity in late-onset mania patients, showed statistical significance demonstrating the role of disruption in bilateral connectivity between ventral-prefrontal networks and temporal lobe amygdala, with cognitive diminished performance.

Changes in sleep architecture and quality in minimal hepatic encephalopathy patients and relationship to psychological dysfunction

C Liu, J Zhou

Mental Health, No. 411 Hospital of CPLA, Shanghai, China

Abstract Objectives: We investigated the characteristic changes in sleep architecture and quality in minimal hepatic encephalopathy (MHE) patients and assessed the relationship between these changes.

Methods: We conducted polysomnography (PSG) and used the Pittsburgh Sleep Quality Index (PSQI) to assess sleep architecture and quality in 98 MHE patients. We also evaluated multiple psychological dimensions and symptoms of dysfunction using the SAS, SDS, and SCL-90 inventories.

Results: The proportions of Stage 1 and Stage 2 sleep, sleep latency, microarousal frequency, total sleep time (TST), and total monitoring time were higher in the MHE group compared to the healthy control group ($p < 0.05$). In contrast, the SWS duration, REM stage duration, REM latency, sleep maintenance rate, and sleep efficiency were all reduced in MHE patients compared to the healthy group ($p < 0.01$). Except for the hours of sleep and use of hypnotic medications reported on the PSQI, all inventory item scores and total scores were significantly higher in the MHE group ($p < 0.05$). Correlation analysis revealed that there were strong correlations between many aspects of sleep architecture revealed by PSG, indices of subjective sleep dysfunction (PSQI), and self-reported psychological symptoms.

Conclusions: MHE patients suffer from multiple subjective dyssomnias, and show characteristic changes in sleep architecture. MHE is related to psychological factors.

Ultra-brief right unilateral ECT is rapidly effective in ameliorating severe mania-a case series

P Mayur^a, A Sidorov^b, A Harris^a

^aPsychiatry, University of Sydney, Sydney, Australia, ^bPsychiatry, Cumberland Hospital, Sydney, Australia

Ultra-brief right unilateral electroconvulsive therapy (ECT) in which, the pulse width of stimulation is reduced to 0.3 ms, is a novel technique that has an excellent antidepressant effect and causes only minimal cognitive impact. However its use, as an anti-manic treatment is unexplored unlike other forms of brief-pulse (≥ 0.5 ms) bilateral or unilateral ECT. Three consecutive patients who had a severe manic episode (DSM-IV) received high dose (6 times threshold) ultra-brief right unilateral ECT in the past 6 months due to inadequate response to lithium and oral and injectable anti-psychotic medications. All three patients had a complete remission from symptoms (as evaluated by clinical global impression and Young Mania Rating Scale) in less than six treatment sessions. Details of the clinical scenarios, the process of ECT and the clinical progress will be detailed during the presentation. This preliminary report of rapid amelioration of mania with ultra-brief right unilateral ECT in a small case series is promising but requires validation in larger controlled trials.

Osteoporosis: a neglected medical co-morbidity in mood disorders

M Berk^a, JA Pasco^a, FN Jacka^a, JM Hodge^b, A Stuart^a, A Torpy^a, S Dodd^a, L Williams^a, Y Gilbert^c

^aSchool of Medicine IMPACT Strategic Research Centre, Deakin University and University of Melbourne, Geelong, Australia,

^bDepartment of Medicine, Barwon Health, Geelong, Australia,

^cSchool of Medicine, Deakin University, Geelong, Australia

Background: Mood disorders are a potential risk factor for low bone mass, falls and fragility fracture as a result of disease and/or medication-related processes. However this process, its extent and the processes involved are poorly understood. The aim of this presentation is to review the extant literature on the epidemiology of bone health in mood disorders, and the effects of treatment.

Methods: A literature review was conducted and details of epidemiological and laboratory studies will be presented.

Results: Mood disorders are associated with lowered bone mineral density, and an increased risk of falls and fractures. Indeed, the presence of mood disorder is a robust risk factors for osteoporosis. Complicating this, many, but not all medications have adverse effects on bone health in addition to and independent of the impact of mood. Interestingly, there are major within-class differences in the effects of bone among antidepressants and antipsychotics. Mood disorders are also associated with an increased risk for falls and fracture.

Conclusion: Given that osteoporosis develops at a glacial pace, that these disorders are chronic and treatment is often lifelong, and that many of the pharmacological agents of concern have only been in use in recent decades, bone health is a major hidden health burden whose impact will likely emerge in coming decades. Considering the growing coalescence of basic and clinical evidence, it may be appropriate for safety monitoring guidelines to incorporate recommendations for prevention and treatment of bone disease in psychiatric patients.