relate to MetS in BD (p > .05). A longitudinal analysis in 52 patients (35 without MetS and 17 with MetS) did not find an association of MetS on the one-year trajectory of cognitive decline in BD. In contrast, high baseline BMI predicted a decrease in the patient's performance in working memory in the 12-months observation period.

Conclusions: The BIPFAT/BIPLONG study demonstrated a high prevalence of overweight, obesity and MetS in bipolar patients with adverse effects on cognitive function. Clinical variables such as suicidality were not related to the presence of obesity or MetS. Clinical impact and further (unpublished) results will be presented.

Disclosure of Interest: None Declared

EPP0927

What do we know about lithium associated hypercalcemia?

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Introduction: Lithium associated with hypercalcemia may mimic a psychiatric condition and be confused for a relapse of bipolar disorder. The etiology seems to be due to a reduced sensitivity of the parathyroid cells to calcium, altering the parathyroid hormone (PTH) response. Lithium as an essential monovalent cation has some structural similarity to calcium (Ca) and can interact with protein receptors. This leads to changes in the inhibitory configuration of PTH and increased serum calcium concentrations, rising the threshold necessary to suppress hormone secretion.

Lithium-induced hyperparathyroidism (HIL) is the main cause of hypercalcemia in these patients.

Objectives: Based on a clinical case of lithium-associated hypercalcemia in a patient with bipolar disorder, review the existing literature and state the needs for periodic monitoring protocols.

Methods: Case report and bibliographical review.

Results: A 38-year-old woman, diagnosed with bipolar affective disorder at the age of 18, has been treated with lithium during which she developed secondary tubulointerstitial nephropathy as an adverse effect. Recently, she requested medical evaluation for constitutional syndrome associated with deterioration of general condition with loss of strength and difficulty in walking. Analytically, mild hypercalcemia was detected, and the study was extended to include Ca and PTH.

Chronic lithium therapy often develops mild hypercalcemia (approximately 10 to 20 percent of patients taking lithium), most likely due to increased secretion of PTH. Lithium can also unmask previously unrecognized mild hyperparathyroidism in patients with adenomas within a few years of starting therapy or induce parathyroid hyperplasia with a chronic use.

The hypercalcemia usually, but not always, subsides when the lithium is stopped. Normalization of serum calcium is more likely to occur one to four weeks post-lithium withdrawal in patients with a relatively short duration of lithium use. It is less likely in patients receiving lithium for more than 10 years.

Regarding the case to be presented, a review of the literature is carried out and the need to propose periodic calcium monitoring protocols is exposed.

Conclusions: Recommendations include determination of serum calcium every 6 months, urinary calcium and creatinine every 12 months, and bone mineral density monitoring every 1 to 3 years. Regular analytical monitoring including total calcium, PTH and vitamin D, would identify patients with a tendency to hypercalcemia so that appropriate measures could be taken. So as chronic treatment with lithium can develop mild hypercalcemia, I consider it necessary to develop periodic monitoring protocols for this adverse effect.

Disclosure of Interest: None Declared

EPP0928

Multivariate network meta-analysis of pharmacological interventions for the treatment of acute bipolar mania: a bayesian approach using lognormal prior distribution

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Introduction: Conventional Bayesian network meta-analysis (NMA) of multiple outcomes are performed using non-informative prior distribution, independently for each outcome.

Objectives: This study aimed to estimate pharmacological intervention effects against placebo within a multivariate Bayesian framework using an informative lognormal prior distribution.

Methods: 13,188 participants were evaluated for two dichotomous study outcomes, namely, treatment response and all-cause dropouts, in 57 double-blinded randomized controlled trials (RCTs) for the treatment of acute bipolar mania (ABM) in adults. Both the study outcomes were measured from baseline to week 3. 10 pharmacological drugs or interventions consisted of mood stabilizers, antipsychotics, antidepressants, combinations of the above and other agents, and were compared against each other as well as with placebo either as monotherapy or add on agents. These treatments include placebo, aripiprazole, haloperidol, quetiapine, ziprasidone, olanzapine, divalproex, paliperidone, carbamazepine, lithium; and lamotrigine. Aggregated arm-based data on both the study outcomes were considered. We used the *logit* scale to model the probability of event occurrence and adopted multivariate modelling approach; wherein both the study outcomes were included in a single NMA model. Further, the between-study variance-covariance matrix was decomposed using the Cholesky and spherical decomposition techniques and the results were compared. The deviance information criterion (DIC) indices were used to assess the model fit. Analyses included 16,00,000 Markov Chain Monte Carlo (MCMC) iterations with 6,00,000 burn-in period and thinning of 100; tested by running three chains with different starting values. All the analyses were carried out in WinBUGS software.

Results: Under Cholesky and spherical decompositions, the correlation between the study outcomes were estimated as -0.51 (-0.68, -0.29) and -0.56 (-0.68, -0.50), respectively. DIC model fit index values for Cholesky and spherical decompositions were 667.74 and

667.53, respectively; indicating both decomposition techniques were equally good. Further, the Gelman-Rubin convergence statistics were stable and all Monte Carlo errors were around 0.005. Overall, olanzapine, paliperidone and quetiapine were both significantly more effective and acceptable than placebo; whereas aripiprazole, haloperidol ziprasidone, divalproex, and carbamazepine were not. In addition, both lithium and lamotrigine failed to be effective and acceptable.

Conclusions: Our findings exhibit an excellent concordance with the one used in clinical practice. Moreover, the Canadian Network for mood and Anxiety Treatments, and Royal Australian and New Zealand College of Psychiatrists guidelines also recommended these drugs as first-line medications for treating bipolar disorder.

Disclosure of Interest: None Declared

EPP0929

Dynamic time warp analysis of individual symptom trajectories in patients with bipolar disorder

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Introduction: Manic and depressive mood states in bipolar disorder (BD) may emerge from the non-linear relations between constantly changing mood symptoms exhibited as a complex dynamic system. Dynamic Time Warp (DTW) is an algorithm that may capture symptom interactions from panel data with sparse observations over time.

Objectives: The current study is the first to analyze a time series of depression and manic symptoms using DTW analyses in patients with BD. We studied interactions and relative changes in symptom severity within and between participants.

Methods: The Young Mania Rating Scale and Quick Inventory of Depressive Symptomatology were repeatedly assessed in 141 patients with BD, with on average 5.5 assessments per patient every 3 to 6 months. DTW calculated the distance between each of the 27*27 pairs of standardized symptom scores. The changing profile of standardized symptom scores of BD patients was analyzed in individual patients, yielding symptom dimensions in aggregated group-level analyses. Using an asymmetric time-window, symptom changes that preceded other symptom changes (i.e., Granger causality) yielded a directed network.

Results: The mean age of the patients was 40.1 (SD 13.5) years old, and 60% were female. Idiographic symptom networks were highly variable between patients. Yet, nomothetic analyses showed five symptom dimensions: core (hypo)mania (6 items), dysphoric mania (5 items), lethargy (7 items), somatic/suicidality (6 items), and sleep (3 items). Symptoms of the 'Lethargy' dimension showed the highest out-strength, and its changes preceded those of 'somatic/suicidality', while changes in 'core (hypo)mania' preceded those of 'dysphoric mania'.
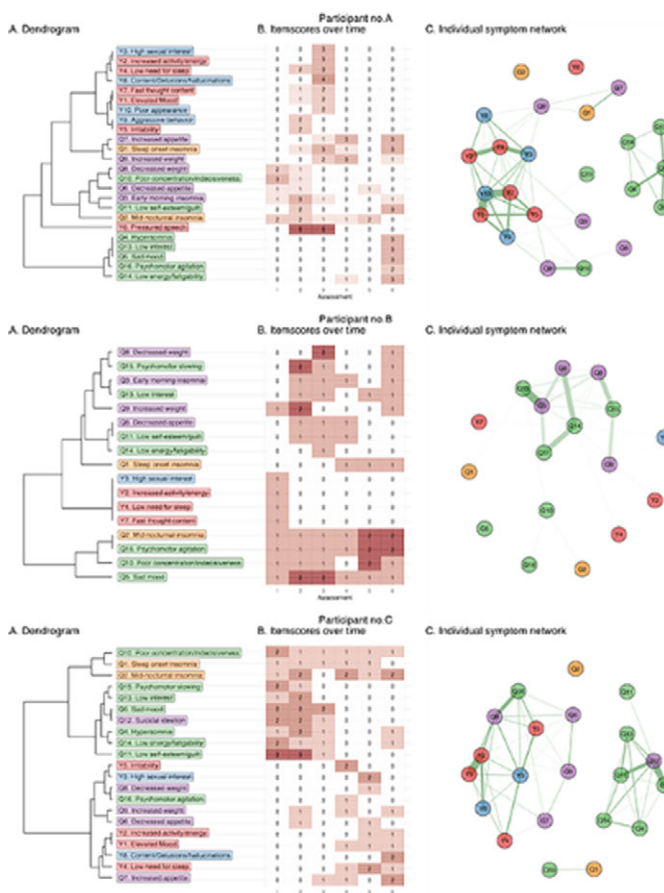
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