

EPV0091

Bipolar Disorder - New era of Treatments: High dose Levothyroxine, rTMS and genetics

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Introduction: Rapid cycling Bipolar disorder and mixed affective states are treatment resistant conditions. Standard treatments are ineffective. Homozygous polymorphism of DIO2 gene is associated 3.75-fold risk of bipolar disorder.

Objectives: High Dose Levothyroxine combined with repetitive transcranial magnetic stimulation (rTMS) in Rapid cycling Bipolar disorder: Is it thyroid disease?

Methods: 20 RCBPD with ICD-10 criteria for bipolar disorder. All were severely symptomatic. TFTs and ECGs were monitored weekly with cardiology and endocrinology backup. Genetic testing was undertaken for DiO1/DiO2 status.

Results: 17 were female, average age 32.4 yrs. 19/20 had Single nucleotide polymorphisms (SNP) of either DIO1, DIO2 or both. All but two patients were treated with rTMS to induce cerebral neuroplasticity. Average pre-treatment fT4 was 17.0 pmol/L, and fT3 4.5 pmol/L. Average post-treatment, fT4 was 59.7 pmol/L and fT3 5.3 pmol/L. Average fT4:fT3 ratio pre-treatment was 4:1, and post-treatment was 5:1. HDL range was 200-800 mcg daily for remission. Average dose 472 mcg daily. Discontinuation rate was 0%. All patients had ECG and cardiac review. One patient required a dose reduction because of minimal side effects. 12 patients needed one mood stabiliser. All were in remission for a minimum of 6 months.

Conclusions: We speculate that BPD may be a form of cerebral hypothyroidism and that HDL helps to overcome the deficit while robust inactivating deiodinases in the periphery protect from systemic thyrotoxicosis. This is evidenced by findings of normal clinical examination and elevated rT3. rTMS exercises its well established neuroplastic effect, helping to achieve and maintain remission as an adjunct to HDL.

Disclosure: The London Psychiatry Centre (TLPC) has pending patents for the combined protocol of rTMS and/or Thyroid hormones depending on the territory: - Pending US Patent application: (and/or) US20200384279 - Pending European patent appl

Keywords: bipolar disorder; rTMS; High Dose Levothyroxine

EPV0090

Results of a Randomized, Double-Blinded Trial of Micronutrients and Fish Oil among Patients Diagnosed with Bipolar Disorder

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Introduction: In a previous open-label study, we found that patients with bipolar disorder improved in symptom level when

taking micronutrients and fish oil. We planned a randomized, double-blind, controlled trial to explore the feasibility and parameters needed for a larger clinical trial.

Objectives: We aimed to determine the parameters necessary to conduct a large-scale clinical trial through completing a feasibility study.

Methods: Patients were screened for having the diagnosis of bipolar disorder and being willing to take up to 16 micronutrient capsules and 3 fish oil capsules per day. Patients were randomized in a 3:2 ratio to micronutrients or placebo. Patients were seen monthly with assessment of the Clinical Global Impression Scale, the UKU Side Effects Scale, and a review of their medication doses. On a quarterly basis, patients completed the BASIS-24, the MYMOP-2, the Young Mania Scale, and the MADRS questionnaire.

Results: The setting was a primary care clinic in Maine in the United States. The patient population was low-income and primarily rural. Disease severity was mild to moderate as only 2 patients were hospitalized during the study. All were symptomatic. One hundred twenty-five patients were screened and accepted randomization. The attrition rate was high and only 52 subjects completed 6 months of treatment. No differences were found between the two groups. We calculated that a minimum of 250 subjects would be needed to have 80% power to detect a difference. All patients improved dramatically in all measures.

Conclusions: Bipolar patients in primary care remain moderately symptomatic and will improve dramatically with monthly visits.

Disclosure: No significant relationships.

Keywords: bipolar disorder; Micronutrients; Fish Oil; Randomized; controlled trial

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Use of intravenous valproate in acute manic: about a clinical case

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Introduction: Acute mania can have behavioral effects such as agitation, being a frequent cause of presentation in the emergency department. Pharmacological treatments include mood stabilizers and atypical antipsychotics. Valproate is an effective drug. However, the intravenous formulation is relegated to other pathologies, such as epilepsy.

Objectives: The objective was to review the use of intravenous valproate in acute mania in the literature and present its use through a clinical case.

Methods: A clinical case using intravenous valproate to treat an episode of acute mania is described and the scientific literature of the last 5 years is reviewed.

Results: A 43-year-old patient attended the emergency department with a diagnosis of bipolar disorder type I in manic episode with agitation, rejection of oral medication, brought in by the police due to risk of aggression against family members, who reported that the patient had stopped taking her usual medication with valproate 500 mg / 24h and quetiapine 200 mg / 24h three months ago. Due