

S20-01 - PARATHYROID HORMONE AND COGNITIVE DEFICITS IN LITHIUM-TREATED BIPOLAR PATIENTS

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Introduction: Long-term lithium-treatment has been associated with deficits in several cognitive domains in euthymic bipolar patients. At the same time, long-term lithium treatment is also associated with an increase in parathyroid levels, often without a concomitant increase in calcium levels. Such an isolated increase in parathyroid levels has been linked to depressive symptoms and cognitive deficits in otherwise healthy individuals.

Aims: To investigate whether increased parathyroid levels are associated with cognitive deficits in euthymic bipolar patients.

Methods: We plan to recruit 30 euthymic bipolar patients on lithium treatment for this study. Patients will take part in several neuropsychological tests, covering executive functioning, memory and attention. In parallel, blood levels of lithium, parathyroid hormone, 25-hydroxyvitamin D, creatinine, calcium and phosphate will be assessed, besides clinical chemistry and blood cell count. In addition, to account for potential confounders, a variety of clinical variables will be recorded, including established mood rating scales and demographic variables as well as further parameters relevant to the course of the illness.

Results: As the study is still ongoing results are not available yet at this moment.

Discussion: Results will be discussed in the context of previous studies examining the impact of lithium and parathyroid hormone on mood and cognition in healthy individuals and patients with bipolar disorder, respectively. Dependent on the outcome of this study, potential future studies, including intervention trials aiming at lowering increased PTH levels in bipolar patients on lithium will be outlined.