

LITHIUM-INDUCED SEVERE HYPOTHYROIDISM PRESENTING WITH PSYCHOTIC MANIA IN A PATIENT WITH BIPOLAR DISORDER: A CASE REPORT

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Lithium is a mood stabilizer used as a first-line treatment for bipolar disorder and related conditions, and schizoaffective disorder. The effects of lithium on thyroid function have been recognized. Clinical and experimental studies show that lithium can impair thyroid hormone synthesis, release, and the thyroid gland's responsiveness to thyroid-stimulating hormone (TSH), leading to dysfunction ranging from subclinical hypothyroidism to severe myxedema. These endocrine disturbances may adversely affect mood stability. This case highlights the importance of considering lithium-induced endocrine abnormalities in acute mood exacerbations.

Informed written consent was obtained from the patient.

A 41-year-old male with a 15-year history of bipolar disorder was followed in outpatient psychiatric care. He had remained euthymic for the preceding three years while receiving lithium 1200 mg/day and quetiapine 300 mg/day. Over a 10-day period, he developed insomnia, increased rate and quantity of speech, elevated energy levels, psychomotor agitation, hostile and aggressive behavior, and paranoid ideation with suspiciousness and ideas of reference. Due to symptom severity, he was admitted

to the psychiatric inpatient unit with a diagnosis of mania with psychotic features.

Laboratory investigations revealed severe thyroid dysfunction, with a TSH level of 73.7 mIU/mL and free T4 < 0.039 ng/dL, while other parameters were within normal limits. Hypothyroidism secondary to long-term lithium use was suspected, and an internal medicine consultation was obtained. Thyroid hormone replacement therapy was initiated. Given the severity of thyroid dysfunction, lithium was discontinued. The psychiatric regimen was revised to valproic acid 1000 mg/day, and the quetiapine dose was increased to 600 mg/day.

During follow-up, TSH levels gradually decreased, indicating improvement in thyroid function. In parallel, manic and psychotic symptoms resolved, and the patient achieved a euthymic mood state.

This case emphasizes recognizing lithium-induced hypothyroidism as a reversible contributor to acute manic episodes and the need for monitoring during long-term lithium therapy.

Keywords: Bipolar disorder, hypothyroidism, lithium