

### Anti-thyroid Antibodies in Bipolar Disorder

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**Background:** Dysfunction of the hypothalamus-pituitary-thyroid axis has been shown to play a role in the pathophysiology of bipolar disorder. Autoimmune thyroiditis is the most common cause of thyroid function alteration. Thus, auto-immune thyroiditis is likely associated with bipolar disorder. It might influence its course, prognosis and/or management.

**Objective:** To study the prevalence of positive anti-thyroid antibodies in patients with bipolar disorder and to examine the prognostic and the therapeutic implications of their presence.

**Methods:** Literature was reviewed using the Medline database and the following keywords: 'bipolar disorder' 'antithyroid antibodies' 'thyroiditis'.

#### **Results:**

PubMed research returned 12 results. After manual inspection, 10 articles were retained and examined.

The prevalence of positive antithyroperoxidase antibodies (anti-TPO Abs) is higher in bipolar patients than in healthy controls, reaching 27%. The presence of positive anti-TPO Abs has been associated with rapid-cycling, with a higher risk of lithium-induced hypothyroidism as well as with poor prognosis.

Auto-immune thyroiditis appears to be related not only to bipolar disorder itself but also to the genetic vulnerability to develop the disorder.

**Conclusion:** The presence of anti-TPO Abs is a possible endophenotype for bipolar disorder. Anti-TPO Abs should be obtained in many patients with bipolar disorder, especially in those on lithium.