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Thyroid alterations in bipolar patients on treatment with lithium[☆]



Alteraciones tiroideas en pacientes bipolares a tratamiento con litio

Dear Editor,

Lithium salts are considered to be the gold standard for the prophylaxis and treatment of bipolar disorders. Despite their toxicity and potential side effects, they are perhaps the only treatment capable of preventing episode recurrence and reducing the excessive mortality associated with affective disorders.¹

The diverse changes on an endocrinological level which lithium may produce are well known, with thyroid alterations standing out, together with nephrogenic diabetes insipidus and hyperparathyroidism. Therefore, given their frequency in daily clinical practice, it is important to be aware of these situations and thus avoid treatment failure, false diagnoses and unnecessary therapy.

The main clinical effects of lithium on the thyroids are the appearance of goitre, with a presentation of between 40%–50%,^{2,3} although these rates are variable, depending on the population sample studied, the duration of therapy and the diagnostic method used. The increase in the size of the thyroid gland is approximately double and diffuse, although it may also present as multinodular,⁴ generally in the first 2 years of treatment.

Hypothyroidism is also a common entity in patients treated with lithium, in the presence or absence of goitre, and is generally subclinical, with an elevation in TSH lev-

els ≥ 5 mU/L, with free T4 levels within the normal range ($.7\text{--}1.4$ ng/dL) and often in the absence of symptoms. Clinically significant hypothyroidism is uncommon.

Its prevalence widely varies from 3.4% up to rates of 6% to 52%,^{3,5} depending on the population studied, age, sex, geographic origin and definition of hypothyroidism used.

Most patients are diagnosed during the first years after treatment initiation with lithium, with the mean time being 18 months,⁶ although it may also develop during the first few months of therapy.

There is a series of risk factors for the development of lithium-induced hypothyroidism to take into account prior to the initiation of treatment. These include the presence of a family history of thyroid disease, being female, mean age (40–59 years), the presence of autoimmune thyroid disease (defined by positivity of antithyroid antibodies), a diet poor in iodine, raised levels of lithemia and rapid cyclers.⁷

Lithium-associated hyperthyroidism is relatively and most cases present after many years of treatment. The symptoms of thyroid hyperfunction may be due to autoimmune thyroid disease (Graves' disease), toxic nodular goitre or silent thyroiditis, with the most common thyrotoxicosis aetiology in patients treated with lithium being temporary granulomatous thyroiditis.

Due to the high incidence of endocrinologic alterations in general and of the thyroid in particular, which occur during treatment with lithium, it is recommended that prior to treatment a thyroid examination and biochemical tests be performed, to include the determination of urea, keratinise, calcium, total proteins, plasmatic levels of SH, free T4 and antithyroid antibodies. Several authors recommend performing a thyroid ultrasound at the beginning, since it has been demonstrated to be a simple and inexpensive⁸ screening method for goitre and thyroid alterations. Patients with normal thyroid function will be reassessed at 6 months and then annually.

When there is subclinical hypothyroidism (TSH ≥ 5 mU/L and ≤ 10 mU/L with normal free T4 l) is recommended at shorter intervals, every 4–6 months.⁹

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Management of subclinical hypothyroidism after treatment initiation with lithium salts continues to raise controversy. In general if the serum TSH is ≥ 10 mU/L there is a high risk of progression to hypothyroidism and treatment should be initiated with levothyroxine. If the serum TSH level is between 5–10 mU/L monitoring of the TSH is recommended and treatment could be justified in some cases,¹⁰ especially if there is goitre, and symptoms of hypothyroidism, including symptoms of depression and raised level of antithyroid antibodies.

Obvious hypothyroidism should be treated with replacement therapy with levothyroxine and in the case of hyperthyroidism treatment should vary depending on the aetiology.

In cases where replacement therapy is required, doses of 12.5–25 $\mu\text{g/day}$ in elderly patients or with cardiovascular risk may be used to begin with. Doses of levothyroxine of 25–75 $\mu\text{g/day}$ are usually appropriate for restoring the levels of TSH in most patients,¹⁰ and on occasion the levothyroxine dose may be increased to 1–1.5 $\mu\text{g/kg/day}$ (100 $\mu\text{g/day}$) in young patients with no cardiovascular risk.

It is important to consider that it is not useful to carry out any analytical assessment before 6 months of treatment have passed of after modification of a levothyroxine dose, since this is the minimum time requirement to reach stable hormonal plasmatic levels.

The aim of replacement treatment is to achieve normal levels of thyroid hormones with non stimulated TSH. It has also been postulated that in patients where thyroid and psychiatric disease coexist, TSH levels must be lower than 3 mU/L, and not 5 mU/L as proposed for the psychiatric disease-free population.

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The training of Psychiatry resident: Summary of the discussion table held during the XXII National Congress of Psychiatry. Spain, 2019[☆]



La formación del residente de Psiquiatría: Resumen de la Mesa de Debate realizada durante el XXII Congreso Nacional de Psiquiatría. España, 2019

Dear Editor,

In accordance with the *Union Européenne des Médecins Spécialistes* (UEMS, European Union of Medical Specialists), the

quality of medical care and expertise of healthcare professionals is directly related to the quality of their training.¹

Competency based training (CBT) has become the dominant approach in training healthcare specialists^{2,3} and has been used in the United Kingdom, the United States and Canada.^{4–6}

This training model is the one recommended by the psychiatry Section of the UEMS⁷. The World Psychiatric Association also recommends assessment based on competences as part of the training programmes in psychiatry which seek excellence.⁸

Against this backdrop, during the 22nd National Psychiatry Congress (Bilbao, 2019) a round table debate took place where the authors of this letter participated as speakers. Among the attendees were resident tutors and psychiatrists interested in the subject matter. During the course of the forum the 2 representative from Spain in the UEMS Psychiatric Section were present.

The aim of the round table was to debate competency based training (CBT), the previous experience applying this model in hospitals in Spain and the opportunities of extend-

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