LITHIUM-ASSOCIATED HYPERPARATHYROIDISM

A CASE REPORT

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INTRODUCTION: Lithium therapy is commonly used in bipolar disorder treatment. Alongside the increasing prevalence of goiter and hypothyroidism, the sustaining use of lithium therapy is associated with several metabolic disorders, such as hypercalcemia and hyperparathyroidism (HPT).

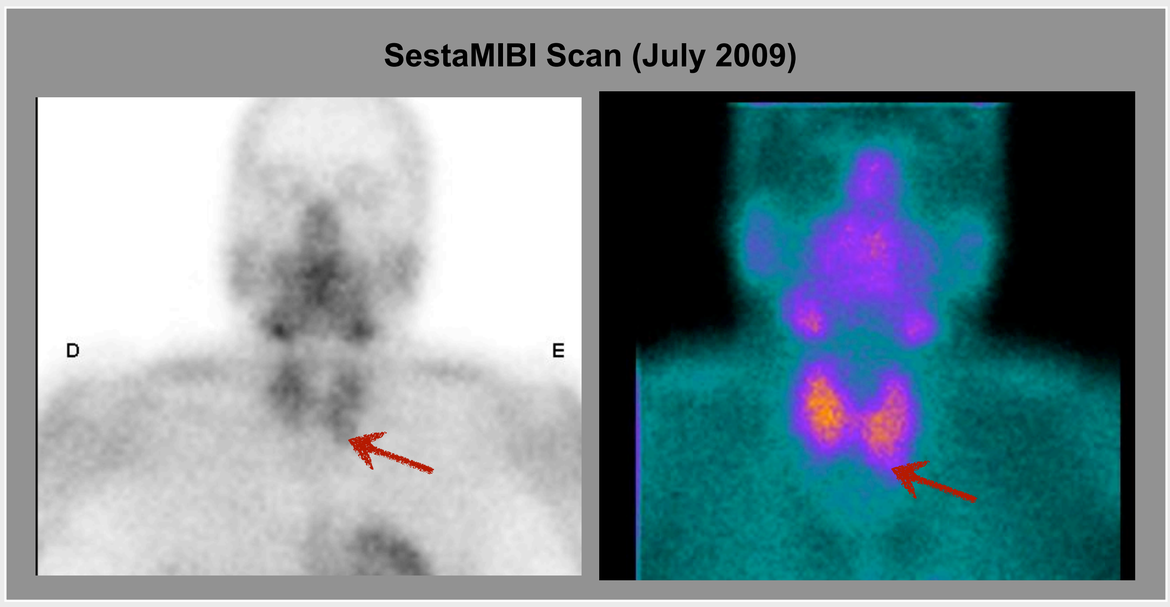
CASE REPORT:

A 64-year-old woman with history of bipolar disorder treated with lithium for several years was referred to our department for evaluation of recurrent hypercalcemia and asymptomatic multinodular goiter (MNG).

Euthyroid MNG (benign fine needle biopsy) and a lithium-associated Hyperparathyroidism (blood calcium 10.6 mg/dl (8,4–10.2); phosphorus 2,06 mg/dl (2,0-4,0) PTH 256pg/dl (15-60)) were diagnosed. SestaMIBI scan was negative. A bone mineral densitometry showed reduced T-score in forearm (-2.0).

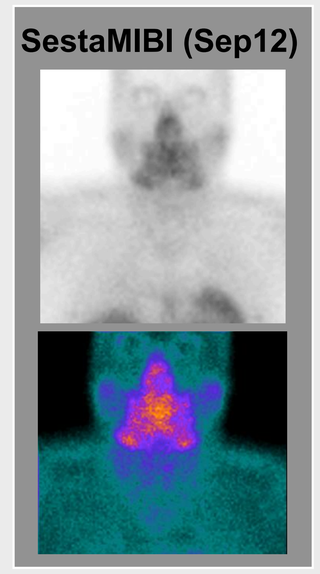
As lithium therapy was essential and could not be discontinued, we started bisphosphonate therapy (alendronate 70mg/week) and conservative management with regular follow-up was planned.

After 1 year of follow-up she showed a severe deterioration of the HPT with increasing calcium levels (12,8mg/dl). A new SestaMIBI scan suggested a left lower parathyroid adenoma (PTA) and was referred to surgery.



A total thyroidectomy and a left lower parathyroidectomy were performed. Histology confirmed a PTA with 13x12x8mm and a follicular hyperplasia of the thyroid gland, with multinodular goiter. After surgery, the calcium levels normalized and PTH levels decreased. She starts treatment with levothyroxine and maintained lithium therapy.

During 1 year, its calcium levels sustain normal, but PTH levels were mildly increased. She performed another SestaMIBI scan that was negative. She maintains a conservative management with regular follow up in our department.



DISCUSSION: It is still unclear whether lithium-associated HPT causes four-gland hyperplasia or promotes the growth of pre-existing parathyroid adenomas (PTA). This leads to a discussion about what should be the best surgical approach. A four-gland exploration is frequently necessary, but excision of simple adenomas may be a valid option. Patients under lithium therapy should be closely monitored to potential HPT, attempting early diagnosis and avoiding associated comorbidities.

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