



## 278 - DEFINITIVE TREATMENT OF A PARATHYROID ADENOMA OF DIFFICULT LOCATION USING PERCUTANEOUS AMBULATORY LASER ABLATION

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### Resumen

**Case report:** A 61-year-old woman with bipolar disorder since the age of 19, presents lithium thyroiditis and multinodular goitre (dominant nodule of 2.2 cc, in the isthmus, TI-RADS 2, benign FNA BII). At 53 years of age hypercalcaemia was detected (Ca 10.9-11.9, PTH 181-301) as well as osteoporosis (T-score femur -2.5). Despite multiple location studies (Echo, CT, MRI, SESTA-MIBI scintigraphy × 3), it was not possible to identify the supposed PTH adenoma, so the patient refused exploratory surgery. Also, diagnosis of hyperparathyroidism due to lithium was considered, but the patient refused to change her medication, with which she was very stable. During > 6 years hypercalcaemia and osteoporosis persisted and she came for a second opinion. Given the difficulty of localizing, the pathologic figures and the presence of osteoporosis in progress, a PET-CT scan of the parathyroid with 18F-Choline was considered. Positive identification of a superior right parathyroid adenoma resulted, and percutaneous local ablation was decided. Percutaneous ablation: after enolization (1.0 mL) of the lesion, PTH was measured. Once the location was confirmed, definitive ablation with NdYAG laser 1,064 nm, (1,050 joules, effective time 5min00s), without anaesthesia, ultrasound-guided, isthmo-cranio-caudal approach, and continuous monitoring of constants was performed. After enolization, a temporal decrease in PTH was observed (from 184 to 61), but without normalization of calcaemia (11.4 to 11.1) and progressive increase of PTH levels towards 116, so that the localization had been confirmed. Subsequently, definitive laser ablation was performed. PTH finally normalized (from 107 to 24) and is maintained > 6m (Ca 9.6-10.1, PTH 39-44).

**Discussion:** Percutaneous laser ablation, ambulatory and without anaesthesia, was effective and safe for the treatment of primary hyperparathyroidism due to parathyroid adenoma, and avoided the risk and cost of major surgery.