

THYROID

Laser ablation of thyroid nodules is rapid, safe and effective

Laser ablation therapy (LAT) is an outpatient procedure used to treat thyroid nodules. Although many small prospective trials have been completed, no real-world data have been reported that describe the effectiveness of the procedure or the associated risks of complications.

In a new retrospective study from eight centres in Italy, ultrasound-guided LAT of benign thyroid nodules was assessed in 1,531 patients. Patients were evaluated immediately after the LAT session, as well as at 24 h, within the following 30 days and finally at 12 months.

Overall, 83% of nodules were treated with a single LAT session, the remaining patients required up to three treatments. At 12 months, the mean reduction in the volume of thyroid nodules was $72 \pm 11\%$ (ranging from 48% to 96%). In total, only 17 complications (0.9%) were recorded and all were reported in the first 24 h after the procedure. Of the major complications, eight patients experienced voice changes; however, these symptoms resolved within

2–84 days with corticosteroid treatment. Similarly, only nine patients reported minor complications, which were perithyroid haematoma ($n = 8$) and skin burn ($n = 1$); however, this burn was an isolated procedural accident. Patient reports of mild, moderate and severe pain were also low (3.3%, 1.9% and 0.4%, respectively).

Interestingly, patients treated without local anaesthetic reported less pain than those who received local anaesthetic. The investigators highlight that pain during the procedure enables a clinician to reposition the LAT apparatus, which might reduce the risk of procedural complications, and note that real-world experience suggests LAT is an effective and rapid outpatient procedure.

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Original article Pacella, C. M. *et al.* Outcomes and risk factors for complications of laser ablation for thyroid nodules. A multicenter study on 1531 patients. *J. Clin. Endocrinol. Metab.* doi:10.1210/jc.2015-1964