

determination 36 months later. For these reasons, we think that this procedure cannot be defined as effective.

The insertion site of the needle and the optic fiber tip is another topic. It is mainly limited by the accuracy of parathyroid localization: localizing studies are effective in showing the side, but are only approximate in showing the exact position of the gland. In fact, as usually evident only during surgery, ultrasonography may sometimes misinterpret adjacent lymph nodes or the thyroid nodule as enlarged parathyroid glands. This could possibly be the case in the 1st patient who had laser thermal

ablation of a gland with a volume of 0.66 ml, which enlarged to 4 ml 1 month after the procedure. Since the volume of parathyroid adenomas is usually greater than 1 ml, it could be argued that the initial target was not a parathyroid gland or, alternatively, that the treatment could cause an 'explosive' growth of a parathyroid microadenoma. The possible ablation of structures other than parathyroid adenomas should be evaluated before performing this procedure, and patients refusing surgery should be alerted to the effectiveness, morbidity and potential risks of this alternative technique.

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Reply

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Dear Sir,

In reply to the remarks by Dr. Iacobone about the efficacy and safety of ultrasound-guided laser thermal ablation in the treatment of parathyroid adenomas, we agree that surgery is the procedure of choice and the only definitive therapy for patients with primary hyperparathyroidism, as clearly reported in the paper. It is also clear that among surgical procedures, minimally invasive approaches are safe, so that they can be used in some patients with high surgical/anaesthetic risk.

We also agree with Dr. Iacobone that laser-thermal ablation induces only cell reduction so that, at variance with surgery, it cannot be curative. However, to date, patient 3, who was considered successfully treated, has normal calcium and PTH levels 48 months after thermal ablation.

As far as the possibility of parathyromatosis and, even worse, cutaneous spread of parathyroid carcinoma, data from the literature indicate that these two complications are rare [1, 2], and are also a pos-

sible complication of surgery [3]. On the other hand, laser-thermal ablation is not free of possible consequences. Indeed, in our 1st patient transient recurrent laryngeal nerve paralysis was observed.

Clear localization of the affected parathyroid gland is of utmost importance when considering the possibility of a thermal ablation procedure. In our experience, taking surgical results into account, concordant localization with sesta-MIBI SPECT and ultrasonography in the absence of nodular thyroid disease does not give false-positives. In our 1st patient calcium and PTH showed a transitory and partial reduction after laser-thermal ablation, confirming that the parathyroid adenoma was correctly identified.

Notwithstanding all these limits, we believe that laser-thermal ablation could be taken into consideration in selected cases (patients who refuse surgery, high anaesthetic risk) as an alternative to surgery, after careful discussion of all risks.

References

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