



THYROID CANCER

Percutaneous laser ablation is effective therapy for recurrence of papillary thyroid cancer in lymph nodes

BACKGROUND

Papillary thyroid cancer is the most common type of thyroid cancer. At the time of surgery, up to 30% of patients have spread of papillary cancer to the lymph nodes in the neck. Despite this, the prognosis of papillary cancer is very good. When papillary cancer recurs, it is usually in the lymph nodes in the neck. This cancer recurrence can be detected using ultrasound of the neck and a needle biopsy of suspicious lymph nodes. Standard treatment for the spread of papillary cancer to the lymph nodes is either surgical removal or radioactive iodine therapy. Percutaneous laser ablation has been used to destroy abnormal growths of tissue in skin and other areas. This study looks at percutaneous laser ablation as a new treatment of lymph nodes involved with papillary cancer.

THE FULL ARTICLE TITLE

Mauri G et al. Percutaneous laser ablation of metastatic lymph nodes in the neck from papillary thyroid carcinoma: preliminary results. *J Clin Endocrinol Metab.* May 10, 2013 [Epub ahead of print].

SUMMARY OF THE STUDY

The authors treated 15 patients with 24 new lymph nodes that were involved with papillary cancer. All patients previously had had a thyroidectomy and radioactive iodine treatment. The patients were followed for at least 6 months. Percutaneous laser ablation of lymph nodes containing cancer was performed under local anesthesia.

In this technique, a needle is inserted into a lymph node under ultrasound guidance, an optic fiber is advanced to the needle tip and laser power is administered to cover several millimeters more than the volume of the lymph node. The technique was successfully performed in all patients. At six months, the lymph nodes containing cancer were treated successfully in 11 of 15 patients (20 of 24 lymph nodes). There were no complications.

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

This is a small series of patients that shows that that percutaneous laser ablation can be safely performed and may be helpful in some cases. It is technically difficult to perform and not widely available. For now, surgery and radioactive iodine remain the standard treatments. As more data is collected, the role for this and other experimental techniques for treating spread to the lymph nodes will be better defined.

— Ronald B. Kuppersmith, MD, FACS

ATA THYROID BROCHURE LINKS

Thyroid cancer: <http://www.thyroid.org/cancer-of-the-thyroid-gland>

Radioactive Iodine Therapy: <http://www.thyroid.org/radioactive-iodine>

Thyroid Surgery: <http://thyroid.org/patients/patient-brochures/surgery.html>

ABBREVIATIONS & DEFINITIONS

Papillary thyroid cancer: the most common type of thyroid cancer.

Cancer metastasis: spread of the cancer from the initial organ where it developed to other organs, such as lymph nodes, lungs or bone.

Thyroidectomy: surgery to remove the entire thyroid gland. When the entire thyroid is removed it is termed a total thyroidectomy. When less is removed, such as in removal of a lobe, it is termed a partial thyroidectomy.

Radioactive iodine (RAI): this plays a valuable role in

diagnosing and treating thyroid problems since it is taken up only by the thyroid gland. I-131 is the destructive form used to destroy thyroid tissue in the treatment of thyroid cancer and with an overactive thyroid. I-123 is the non-destructive form that does not damage the thyroid and is used in scans to take pictures of the thyroid (Thyroid Scan) or to take pictures of the whole body to look for thyroid cancer (Whole Body Scan).

Percutaneous laser ablation: this is a new technique using laser power to destroy abnormal growths of tissues, including cancer. In this technique, a needle is inserted into a lymph node under ultrasound guidance, an optic fiber is advanced to the needle tip and laser power is administered.