# REOPERATION CURES ONLY HALF OF THE PATIENTS WITH LOCALLY RECURRENT PAPILLARY THYROID CANCER

Yim JH, Kim WB, Kim EY, Kim WG, Kim TY, Ryu JS, Gong G, Hong SJ, Shong YK. **The outcomes of first reoperation for locoregionally recurrent/persistent papillary thyroid carcinoma in patients who initially underwent total thyroidectomy and remnant ablation.** J Clin Endocrinol Metab. April 20, 2011 [Epub ahead of print].

#### SUMMARY • • • • • • • •

## **BACKGROUND**

Recurrence of papillary thyroid cancer (PTC) in cervical lymph nodes is common. The guidelines of the ATA recommend reoperation as the initial treatment when distant metastases are not present. The purpose of this study was to analyze the success of this form of treatment.

# **METHODS**

This Korean study analyzed 83 patients who underwent reoperation for locoregionally recurrent PTC; only patients without antibodies to thyroglobulin (Tg) were selected. All patients had a total thyroidectomy performed by a single surgeon and also received 131I ablation. Patients were followed using neck ultrasound, other imaging methods, and measurement of serum Tg to detect recurrence. Reoperation was performed by the same surgeon. After reoperation, a biochemical cure was defined as a thyrotropin-stimulated Tg less than 1 ng/ml. The median follow-up after reoperation was 5.4 years.

#### **RESULTS**

The initial surgery consisted of central-neck dis-

section in 62 patients and modified radical neck dissection in 20. The median duration of the relapsefree interval until the first recurrence was 2.3 years (range, 1 to 10). Forty-two patients (51%) experienced a biochemical remission. Those in remission had a lower preoperative serum Tg as compared with those who did not have a remission, but there were no other significant clinical differences between those who experienced remission and those who did not. Only 2 of 10 patients with a stimulated Tg >100 ng/ml experienced a biochemical remission after reoperation. The magnitude of the change in stimulated Tg, comparing preoperative and postoperative values, was proportional to the number of tumor-positive lymph nodes removed. A postoperative stimulated Tg <5 ng/ml was highly predictive of no clinical recurrence. Three of 13 patients with clinical recurrence had stimulated Tg <1 ng/ml after the first reoperation.

### **CONCLUSIONS**

Reoperation is effective for treating locally recurrent PTC. Stimulated Tg is a useful marker for evaluating the efficacy of reoperation.

# COMMENTARY • • • • • • • • • •

Minor elevations of serum Tg are common in patients with PTC after initial thyroidectomy and radioiodine ablation. Many patients will have undetectable "suppressed" serum Tg but a stimulated value >2 ng/ml with no readily detectable neck disease on cervical ultrasound or disease that is found elsewhere on radioiodine scans. This report suggests that it may be worthwhile to search more vigorously for neck disease

as the cause of the elevated serum Tg, because the reoperation achieved a biochemical cure in half of the patients. Unfortunately, the method for detecting the recurrent cervical disease was not stated, so one may speculate that disease was detected by ultrasound and biopsy of lesions. In contrast with this report, a major U.S. medical center achieved a biochemical cure in only 23% of patients with the first operation for recurrent neck disease using the same criterion of a stimulated continued on next page

Tg <1 ng/ml (1). In 9% of the patients in the recent U.S. study, no PTC was found in the resected nodes, and none of this group had a biochemical remission despite the identification of recurrent disease based on ultrasound and fine-needle aspiration biopsy of suspected lesions (1). Also worrisome is that about one fourth of those with clinical recurrence in the Korean study had a postoperative stimulated Tg <1 ng/ml. It is not surprising that only 20% of those with a larger burden of disease, indicated by a stimulated

Tg >100 ng/ml, had a biochemical remission. Based on the experience of this Korean group, perhaps it is worthwhile to follow patients with observation only if the stimulated Tg is <5 ng/ml because only one fourth to one half of these patients have a biochemical cure and clinical recurrence was not detected in a 5-year follow up in the patients with a stimulated Tg <5 ng/ml after the reoperation.

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#### **REFERENCE**

1. Al-Saif O, Farrar WB, Bloomston M, Porter K, Ringel MD, Kloos RT. Long-term efficacy of lymph node reoperation for persistent papillary thyroid cancer. J Clin Endocrinol Metab 2010;95:2187–94. Epub March 23, 2010.