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PRACTICE WHAT YOU PREACH: THERE IS INCREASING USE OF TOTAL THYROIDECTOMY FOR BENIGN DISEASE IN THE UNITED STATES

Ho TW, Shaheen AA, Dixon E, Harvey A. **Utilization of thyroidectomy for benign disease in the United States: a 15-year population-based study.** Am J Surg 2011;201:570-4.

SUMMARY

BACKGROUND

Determining the extent of thyroidectomy for benign disease hinges on the balance of surgical risk and eliminating the need for reoperation for disease recurrence. Academic centers have advocated the safety of total thyroidectomy in experienced hands and have recommended this procedure for the management of benign goiters. Others have argued that even the small added operative risk of total thyroidectomy is unjustified for benign disease. The purpose of this study was to assess whether the use of total thyroidectomy for benign thyroid disease is increasing as advocated by "experts."

METHODS

The authors extracted data from 119,885 thyroidectomy patients from the Nationwide Inpatient Sample Database for the years 1993 to 2007. Adult patients who underwent total or partial thyroidectomy for benign disease were identified by ICD-9 code. Study variables included year of operation, extent of thyroidectomy, hospital type and volume, morbidity, mortality, hospital charges, and length of stay. Analysis was performed by multivariate logistic regression or multiple linear regression.

RESULTS

There was a trend for increased performance of total thyroidectomy over the study period: 17% (1993 to 1997), 26% (1998 to 2002), and 40% (2003 to 2007). In addition, teaching hospitals and high-volume hospitals (>100 cases per year) performed total thyroidectomy more frequently with better outcomes than nonteaching institutions and low-volume hospitals (<10 cases per year). Postoperative complications—such as hypocalcemia, bleeding, and recurrent laryngeal nerve injury—length of stay, and total hospital charges were higher after total thyroidectomy.

CONCUSIONS

This study confirms the increased use of total thyroidectomy for benign disease in the United States over the 15-year period studied.

COMMENTARY

Although the performance of total thyroidectomy is on the rise, the majority of patients still undergo partial thyroidectomy for benign disease in the United States. Moreover, these data suggest that high-volume and teaching hospitals more often perform total thyroidectomy for benign disease with apparently better outcomes. This supports the notion that we are practicing what we preach (or publish).

The authors analyzed outcomes such as postoperative hypoparathyroidism and recurrent laryngeal-nerve injury, but such data from an administrative database can be unreliable because of poor patient follow-up and inaccurate coding. I would be hesitant to draw strong conclusions from this report, although the number of patients studied is certainly impressive.

This report reveals a trend in our surgical management over the past two decades, but it should not be misconstrued as a treatment algorithm. Certainly, total thyroidectomy will mitigate the need for reoperation in a patient with asymmetric goiter, whereas partial thyroidectomy is sufficient for a patient with a hot nodule. This study does not detail the specific pathology for each patient, so we cannot

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be sure which types of patients are increasingly being treated with total thyroidectomy. Presumably, patients with benign goiters are undergoing total thyroidectomy more often, since recurrence is a rationale for this approach. Regardless, the approach to every patient with benign thyroid disease should still be individualized and based on multiple factors, including operative risk, type of thyroid pathology, and patient preference.

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