

THYROID GLAND

Hypothyroidism found to be a frequent occurrence after partial thyroidectomy

The incidence of hypothyroidism after partial thyroidectomy could be at least 10.9%, according to the findings of a retrospective analysis performed by a group from Melbourne, Australia.

Partial thyroidectomy involves the surgical removal of one lobe of the thyroid gland. Although patients who undergo this procedure retain some thyroid function, the incidence and potential risk factors for postoperative hypothyroidism remain unclear. Shirley Su and colleagues have attempted to address this issue by reviewing the medical notes of 294 patients who underwent partial thyroidectomy at the Monash University Endocrine Surgery Unit between August 1992 and June 2006.

Indications for partial thyroidectomy included the presence of thyroid nodules with symptoms of hyperthyroidism and suspicion of thyroid carcinoma after fine-needle aspiration biopsy; all of the

operations were performed by the same surgeon. Patients with preoperative hypothyroidism were excluded from the analysis.

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Postoperative hypothyroidism was detected in 32 (10.9%) of the patients; the mean time to diagnosis was 8.2 months and the mean TSH level was 9.3 mIU/l. Although 84.4% of patients who developed hypothyroidism had preoperative TSH levels within the normal range (0.5–4.0 mIU/l), the incidence of postoperative hypothyroidism was greater among patients with preoperative TSH levels of 2.5–4.0 mIU/l than among those with preoperative TSH levels of 0.5–2.4 mIU/l. For the most part, postoperative hypothyroidism was

subclinical (78.1% of all cases), and only patients with overt hypothyroidism received levothyroxine (mean dose 69.4 µg daily).

In addition to preoperative TSH levels at the high end of the normal range, patients who developed postoperative hypothyroidism were more likely to have histologically confirmed thyroiditis and detectable antithyroid antibodies than were patients who remained euthyroid. The combination of these three factors had an 80% positive predictive value for hypothyroidism.

Su *et al.* conclude that patients undergoing partial thyroidectomy should be closely monitored for the development of postoperative hypothyroidism.

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Original article Su, S.Y. *et al.* Hypothyroidism following hemithyroidectomy: a retrospective review. *Ann. Surg.* **250**, 991–994