Complications of Thyroid Surgery: Analysis Of a Multicentric Study on 2926 Consecutive Patients

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Despite the developments of surgical technique and technology, the risk of complications of thyroid surgery is still a major issue. The most frequent are hypocalcaemia and recurrent laryngeal nerve injury. Haemorrhage, infection, superior laryngeal nerve lesion and thoracic duct injury are rare.

This is a retrospective study of prospectively collected data by questionnaires from 39 endocrine surgery units affiliated to the Italian Endocrine Surgery Units Association (Club delle Unità di EndocrinoChirurgia - UEC), where thyroid surgery is routinely performed. The study population was composed of 2926 consecutive patients (77.7% females) undergoing primary or completion thyroidectomy. The median age was 52 (range, 18-79). 2497 (85.3%) patients underwent surgery because of benign diseases.

The rate of hypoparathyroidism was 26.21% (767 patients), including transient hypocalcaemia (25.4%, 743 patients) and permanent hypocalcaemia (0.8%, 24 patients). Recurrent laryngeal nerve injury happened in 127 (4.4%) cases, but only in 11 (8.7%) cases the lesion was permanent. Haemorrhage followed 29 operations (1%). In 13 (44.8%) patients this happened < 4 h, in 14 (48.3%) in 4 – 12 h and in 2 (6.9%) > 12 h. Infection affected 28 (1%) patients. Fourteen (0.48%) patients had a superior laryngeal nerve injury. Lesion of thoracic duct happened in 2 cases (0.1%).

This is the more huge Italian study on thyroid disease and its treatment. Total thyroidectomy has significant risks and should only be performed if strongly suggested. Data collected from presented database offer robust evidence to guide clinical decisions and policy makers to adopt safer thyroid operations.