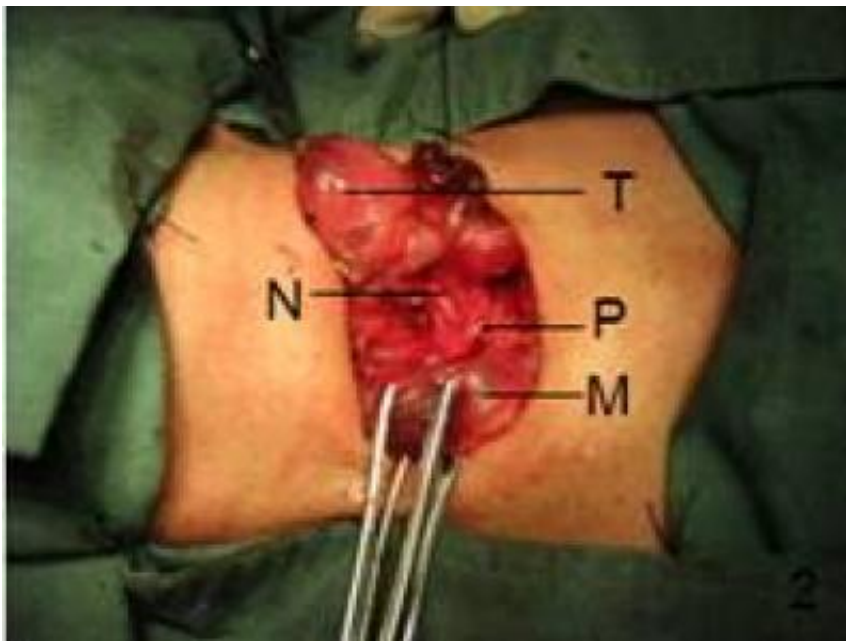


Routine exposure of recurrent laryngeal nerve in thyroid surgery can prevent nerve injury

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This is a recurrent laryngeal nerve with the inferior parathyroid as a landmark. P: Inferior parathyroid gland; T: tumor; M: strap muscles; N: recurrent laryngeal nerve. Credit: *Neural Regeneration Research*

Recurrent laryngeal nerve injury is the most common serious complication of thyroid surgery. Therefore, preventing recurrent laryngeal nerve injury is an important goal in thyroid surgery.

A retrospective clinical controlled study from Xinhua Hospital, Shanghai Jiao Tong University School of Medicine demonstrates that dissecting the recurrent laryngeal nerve during thyroid surgery is clinically significant for preventing nerve injury. To determine the value of dissecting the recurrent laryngeal nerve during [thyroid surgery](#) with respect to preventing recurrent laryngeal nerve injury, this study retrospectively analyzed clinical data from 5 344 patients undergoing [thyroidectomy](#).

Among these cases, 548 underwent dissection of the recurrent laryngeal nerve, while 4 796 did not. There were 12 cases of recurrent laryngeal nerve injury following recurrent laryngeal nerve dissection (injury rate of 2.2%) and 512 cases of recurrent laryngeal nerve injury in those not undergoing nerve dissection (injury rate of 10.7%). This difference remained statistically significant between the two groups in terms of type of [thyroid disease](#), type of surgery, and number of surgeries.

Among the 548 cases undergoing recurrent laryngeal nerve dissection, 128 developed anatomical variations of the recurrent laryngeal nerve (incidence rate of 23.4%), but no recurrent laryngeal nerve injury was found. In addition, the incidence of recurrent laryngeal nerve injury was significantly lower in patients with the inferior parathyroid gland and middle thyroid veins used as landmarks for locating the recurrent laryngeal nerve compared with those with the entry of the recurrent laryngeal nerve into the larynx as a landmark.

Among the 548 cases, seven of the 442 cases (1.6%) with the inferior [parathyroid](#) gland as a landmark for locating recurrent laryngeal nerves showed recurrent laryngeal nerve injury; two of the 79 cases (2.5%) with the middle [thyroid](#) vein as a landmark were injured; and three of the 27 cases (11.1%) with the recurrent laryngeal nerve into the [larynx](#) as the landmark showed recurrent laryngeal nerve injury.

Provided by Neural Regeneration Research

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