Clinic pathological analysis of thyroid neoplasms with preoperative recurrent laryngeal nerve palsy in 80 cases

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[Abstract] Objective To investigate the clinical significance of preoperative recurrent laryngeal nerve palsy (RLNP) for thyroid neoplasms with regard to the incidence of malignancy, recurrent laryngeal nerve involvement and histopathologic character. **Methods** Eighty patients with preoperative RLNP treated in Zhejiang Cancer Hospital between Jan 2007 to Dec 2014 were enrolled, and their clinic pathological data were recorded and retrospectively analyzed. **Results** Of these 80 patients, 16 patients had benign thyroid disease, while the other 64 had malignancies (80.0%). The preoperative RLNP incidence of benign and malignant neoplasms was 0.3% and0.9%, respectively. The proportion of RLNS on the left and right side, respectively, were 0.15% and 0.45%. Poorly differentiated and anaplastic thyroid cancer had the higher incidence of preoperative RLNP comparing with other pathology types (25.93%, $p<0.05$). Eleven patients discharged without surgery. Among the 69 patients underwent surgery, 5 patients underwent palliative surgery or biopsy. The intraoperative RLN excision rate was 12.50 %(2/16) in benign lesions and 87.50 %(42/48) in malignancies, respectively. All nerves were sacrificed in poorly differentiated and anaplastic thyroid cancer patients. The RLN could be dissected from 14 benign lesions and 6 malignancies, with or without adhesion, experienced recovery of nerve function postoperatively. **Conclusion** Thyroid neoplasms of left or right side have the similar rate of preoperative RLNP. The probability of preoperative RLNP is significantly higher in malignant neoplasms than benign lesions. Thyroid tumors with RLNP are strongly suggested of malignancy, with higher rate of intraoperative nerve sacrifice. The RLN should be preserved if it has not been invaded by the tumor, which offers a chance of functional recovery postoperatively.
[Key words] Thyroid neoplasms; Adenocarcinoma, papillary; recurrent laryngeal nerve palsy; Goiter nodular; Thyroidectomy