

Rare Complication after Thyroidectomy: Horner's Syndrome

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Introduction. Horner's syndrome (HS) is characterised by a combination of palpebral ptosis and pupillary miosis, which can be accompanied by ipsilateral vasodilatation and anhidrosis of face, and enophthalmus. HS can be caused by numerous pathologic conditions, including neck surgery, affecting sympathetic pathway at various levels. However, HS after thyroidectomy is extremely rare complication.

Aim, Material and Methods. Literature review and case report of a 28-year-old female patient with HS after thyroidectomy and central lymph node dissection due to papillary cancer has been presented to highlight rare complication of thyroidectomy.

Results. A 28-year-old female patient with solitary nodule in thyroid isthmus part. Fine needle aspiration biopsy of nodule revealed follicular epithelium atypical proliferation (Bethesda 4), chronic lymphocytic thyroiditis. The patient was assigned for thyroidectomy. To decide upon the extent of the operation, frozen section of isthmus and right thyroid lobe was done. Rapid morphology revealed papillary carcinoma. Total thyroidectomy and right side central lymph node dissection was performed. After the operation, the patient had right side eyelid ptosis which primary was suspected as a result of external compression of eye region during operation. On the 9th postoperative day, right side blepharoptosis still remained. Right pupil miosis was noticed. Moreover, the patient complained about skin hyperesthesia of right shoulder, neck and scalp. Neurologist consultation and CT angiography of head and neck was done, but revealed no pathology. Diagnosis of Horner's syndrome as a complication after thyroidectomy was established. The final histology confirmed diagnosis of papillary thyroid cancer T3N1M0. One month subsequent to operation, right eyelid ptosis and miosis of pupil remained unchanged.

Conclusions. Thyroid surgery-associated HS is a rare complication. HS has been confirmed to be induced by direct or indirect injury of the cervical sympathetic pathway due to anatomical factors. Most common reasons are mechanic or ischemic damage during thyroidectomy and lymph node dissection of oculosympathetic pathway, traction or postoperative compression. Another possible cause of HS is thermal damage from the harmonic scalpel during surgical procedure. The onset and duration of HS can vary according to severity of damage from temporary to permanent. Careful surgical dissection and avoiding of extensive tension should be carried out to avoid HS after thyroidectomies. Despite that, rare cases worldwide still are reported.