Ganglioneuroma of the Neck

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Abstract

Ganglioneuroma (GN) has a neuroectodermic origin and is localized along the sympathetic trunk. GN of the neck is a rare tumour and due to proximity to the thyroid gland, clinically and radiologically, these lesions can be mistaken as thyroid swellings. Definite diagnosis only can be suspected after surgical exploration and complete surgical excision is the treatment of choice, as it will ensure thorough sampling of the tumour and cure.

Introduction

Ganglioneuroma (GN) of the neck is a rare tumour that most commonly presents as an enlarging neck mass.[1,2] In the neck due to proximity to the thyroid gland, clinically and radiologically, these lesions can be mistaken as thyroid swellings (i.e. goiter)[3] and diagnosis only can be suspected after surgical exploration as in the

present case.[1,3]

Case report

A 22-year male presented with a 10-year history of a gradually increasing, painless mass in the left side of his neck without any other associated symptoms (Fig. 1). On

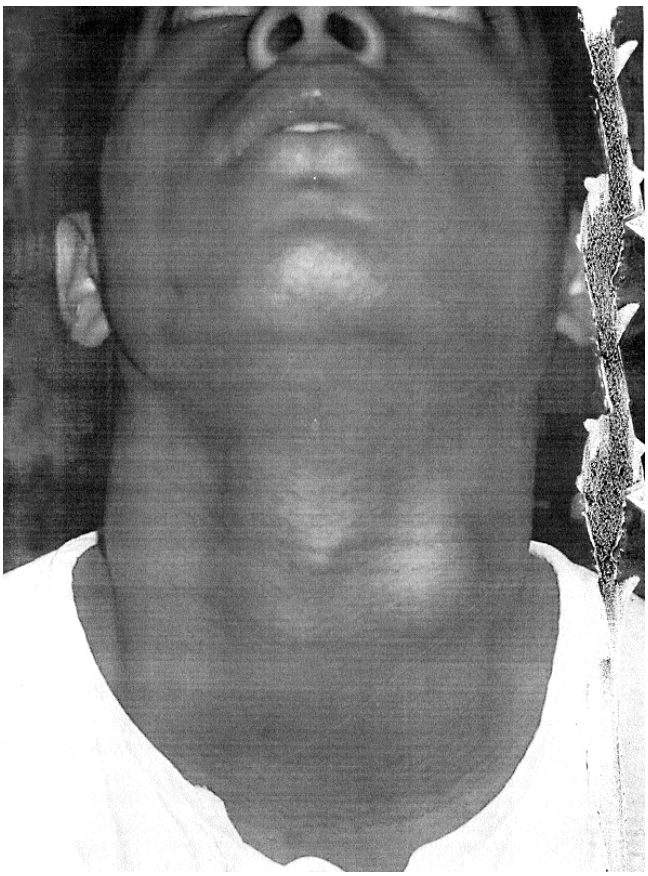

Fig-1: Clinical photograph showing swelling in the left anterior triangle of the neck.

examination the mass was situated laterally in the neck in the carotid triangle and was moving with deglutition. Fine needle aspirate cytology revealed clusters of colloid cells. Ultrasound detected a hypoechoic hypovascular mass situated near the upper pole of the thyroid. With all these findings a diagnosis of non-functioning thyroid goiter was made. During surgery there was a firm capsulated mass measuring 3 x 2.5 x 3 cm present in the left carotid space separate from the thyroid gland and it could be totally excised. The cut surface was whitish and had a whorled pattern (Fig. 2). Histopathology revealed an encapsulated tumour with low cellularity and a variably loose stroma showing degenerative changes. Two distinct cellular subgroups were identified microscopically: large ganglion cells and Schwann cells. A diagnosis of ganglioneuroma with degenerative changes was made. Post operatively the patient developed Horner's syndrome (Left ptosis, miosis,

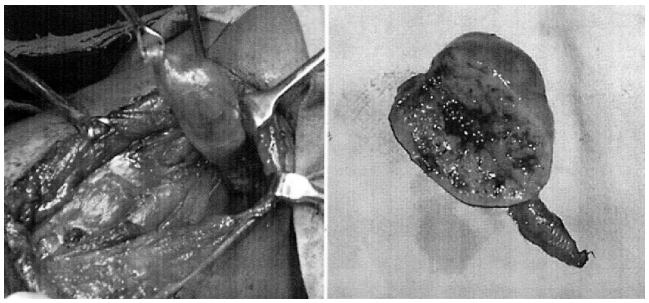

Fig-2: Intra-operative photograph showing a well defined capsulated lesion attached to the carotid sheath (left), cut surface showing the whorl pattern (right).

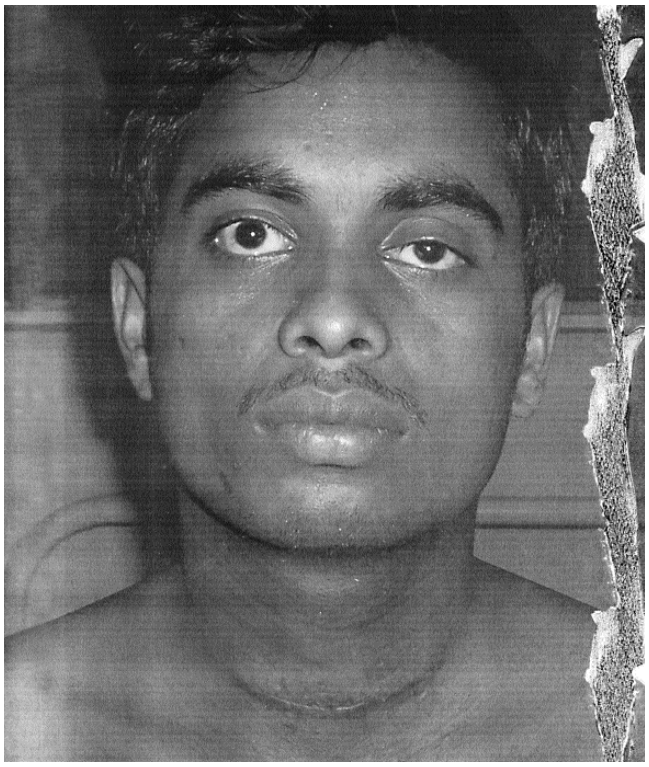

Fig-3: Patient developed Horner's syndrome after the surgery.

enophthalmos and absence of ciliospinal reflex) (Fig. 3). He underwent a Fasanella Savant procedure for correction of left ptosis and is doing well at follow up.

Discussion

Tumours of sympathetic nervous system (neuroblastoma, ganglioneuroblastoma and ganglioneuroma) are derived from neural crest cells. Histological differentiation of these tumours are directly related to their clinical behaviour. Ganglioneuroma consists of mature Schwan cells and ganglion cells. Neuroblastoma and ganglioblastoma are malignant and the proportion of neuroblastoma element determines the histological grading and prognosis.[4,5]

Ganglioneuroma is a benign tumour. Ganglioneuroma usually occurs in older population and in literature contrary to our case there is a slight female predominance.[6] The most common locations for GN to occur are the posterior mediastinum, retro peritoneum, adrenal gland, and neck (8%) respectively. Unusual sites include the spermatic cord, heart, bone, and intestine.[7-9] In the neck it is sometime confused with other neck swellings i.e. thyroid swellings. Complete surgical excision is the treatment of choice, as it will ensure thorough sampling of the tumor and cure.[2,3,6,9]

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