Giant Thyroglossal Cyst in an Elderly Patient

Nitish Baisakhiya

Received: 2 July 2008 / Accepted: 8 August 2008 / Published online: 6 April 2011
© Association of Otolaryngologists of India 2011

Abstract 65 year old male presented to us with swelling on right side of neck which was progressively increasing since last 1 year. Moving with deglutition but not with the protrusion of tongue, FNAC and ultrasonography of the swelling suggested possibility of thyroglossal cyst (TGD). Histopathological report, on removal, by Sistrunk operation confirmed the same. Presence of TGD at the ripe age of 65 years, huge size, multilobular nature and absence of classical signs of TGD, in our patient prompted us to report this case.

Keywords Thyroglossal cyst · Multilobular · Cyst carcinoma · Sistrunk's procedure

Introduction

Thyroglossal cyst (TGD) cyst is a developmental abnormality that manifests clinically as a cystic mass. It generally presents at a young age but appearance of TGD in adults is not uncommon. Its occurrence in elderly patients is quite rare. It may arise anywhere along the thyroglossal tract which extends from foramen cecum on the dorsum of the tongue at the junction of anterior two third and posterior third to the isthmus of thyroid gland. Here is rare

presentation of the TGD cyst occurring at the age of 65 years. Age apart, its giant size and multilobular nature sets it apart from other common cases of TGD cyst.

Case Report

A 65 year old male presented with anterior neck swelling which was more on the right side, since last 1 year. Painless and progressively increasing in size, there was no history of difficulty in breathing and swallowing, painful swallowing and change in voice. There was no history of recent episode of upper respiratory tract infection. Patient was not addicted to any harmful habits. On examination there was multilobular mid-line swelling more towards the right side, extending vertically from the level of hyoid bone to the cricoid cartilage and horizontally from anterior border of right sternocleidomastoid muscle reaching to the opposite one (Fig. 1). It was about 11×9 cm in size. Soft to firm mass was moving over the thyroid cartilage. There was slight movement during swallowing movement on protrusion of tongue was lacking. FNAC and ultrasonography was suggestive of TGD. Thyroid profile was normal. X-ray neck lateral view did not show any compression of trachea. Patient underwent Sistrunk's procedure (Fig. 2) Post-operative histopathological examination of the specimen confirmed diagnosis of TGD without any evidence of malignancy. Patient made uneventful recovery and did not develop any complications.

Discussion

The thyroid gland develops from the tuberculum impar, an endodermal swelling in the pharyngeal floor between the 1st and 2nd pharyngeal pouches that appears around the 24th

N. Baisakhiya (✉)
Jawaharlal Nehru Medical College, Datta Meghe Institute
of Medical Sciences, Wardha, India
e-mail: nitish.baisakhiya@gmail.com

N. Baisakhiya
Datta Meghe Institute of Medical Science (Deemed University),
Nagpur, India

N. Baisakhiya
Datta Meghe Institute of Medical Sciences, Sawangi (Meghe),
Wardha, India

Fig. 1 Preoperative photograph showing thyroglossal cyst

Fig. 2 Intra-operative photograph

day of embryogenesis. This invaginates to form a diverticulum, later to become the site of the foramen caecum. The diverticulum descends through and around the hyoid bone. A common variation of abnormal thyroid development is a TGD cyst, one of the most frequent causes of a midline cervical mass in the paediatric population. The TGD is the embryological attachment of the thyroid gland to the tuberculum impar and usually involutes after the 5th embryonal week. Failure to involute and atrophy results in persistence of a thyroglossal duct remnant or cyst, which is usually found at the level of the hyoid bone. TGD cysts are frequently contain accessory thyroid tissue. This thyroid tissue may be ectopic or only thyroid tissue in the body.

Cyst is lined by columnar, cysts in order to confirm the presence of a normal thyroid gland and prevent removal of the only functioning thyroid tissue [1]. On a CT scan, a benign TGD cyst appears as a midline, fluid-attenuated mass near the level of the hyoid bone, with a thin, smooth wall [2]. Treatment consists of Sistrunk procedures which include removal of cyst along with e tract, body of hyoid bone and core of tissue along tract up to the foramen caecum [3]. If the hyoid body is not removed, the recurrence rate is 85%. In spite of removal of body, recurrence rate is 2–8%. Malignant change is known in TGD. The most common histological types of TGDs carcinoma are papillary carcinoma (80%), mixed follicular-papillary carcinoma (8%), squamous cell carcinoma (6%), follicular carcinoma (3%), adenocarcinoma, and various unclassified tumors (3%) [4]. There is no difference in presentation of benign and malignant cyst, though malignant TGD may present with rapidly increasing neck mass [5]. An ultrasound examination may aid in the diagnosis of malignancy by demonstrating a mural nodule, calcification or lymph node metastases [6]. Sistrunk procedure in most of the cases is optimum but sometimes in malignant transformation, hemi or total thyroidectomy with neck dissection may be required.

References

1. Radkowski D, Arnold J, Healy G, McGill T, Treves ST, Paltiel H, Friedman (1991) Thyroglossal duct remnants. Preoperative evaluation and management. *Arch Otolaryngol Head Neck Surg* 117:1378–1381
2. Beede DL, Bergeron RT, Som PM (1985) CT of thyroglossal duct cysts. *Radiology* 157:121–125
3. Peretz A, Leiberman E, Kapelushnik J, Hershkovitz E (2004) Thyroglossal duct carcinoma in children: case presentation and review of the literature. *Thyroid* 14:777–785. doi:[10.1089/1050725041872945](https://doi.org/10.1089/1050725041872945)
4. Weiss SD, Orlich CC (1991) Primary papillary carcinoma of a thyroglossal duct cyst: report of a case and literature review. *Br J Surg* 78:87–89
5. Allard RH (1982) The thyroglossal cyst. *Head Neck Surg* 5: 134–146
6. Cignarelli M, Ambrosi A, Marino A, Lamacchia O, Cincione R, Neri V (2002) Three cases of papillary carcinoma and three of adenoma in thyroglossal duct cysts: clinical—diagnostic comparison with benign thyroglossal duct cysts. *J Endocrinol Invest* 25:947–954