

INFECTED THYROGLOSSAL CYST

Dr. M. K. Rajasekar	Professor Department Of Ent , Sree Balaji Medical College And Hospital
Dr. Sridhara Narayanan*	Professor Department Of Ent , Sree Balaji Medical College And Hospital *Corresponding Author
Dr. S. Thrupthi	Junior Resident Department Of Ent , Sree Balaji Medical College And Hospital

ABSTRACT

Thyroglossal duct cysts are one of the most common midline lesions in the paediatric age group affecting approximately 7% of the population. Infection and abscess formation are common complications. Infected neck mass is a common presentation of thyroglossal duct cysts in adults. Here we present a case of a 25 year old male with neck swelling and fever for 1 week.

KEYWORDS :**INTRODUCTION:**

Thyroglossal duct cysts are one of the most common midline lesions in the paediatric age group. They are epithelial remnants of the thyroglossal tract and present at the level of thyrohyoid membrane. Both sexes are equally affected.

CASE HISTORY:

A 25 yr old male came with complaints of neck swelling and fever for 1 week. He also gave history of neck swelling for past 1 yr which was evaluated elsewhere. He was suggested to do a CECT neck and FNAC of the swelling elsewhere which suggested thyroglossal cyst. He presented in our hospital with fever with chills, painful and tender neck swelling and restricted neck movement for 3 days following FNAC. CECT neck was repeated and suggested an infected thyroglossal cyst with abscess formation. He was started on broad spectrum antibiotics empirically. Patient underwent Incision and drainage of the abscess. About 50 cc of pus was drained and sent for culture and sensitivity. Pain and tenderness reduced, but induration was present.

Antibiotics were changed based on the culture and sensitivity report and was taken up for surgery after 2 weeks.



Fig. 1. Patient presents with infected thyroglossal cyst

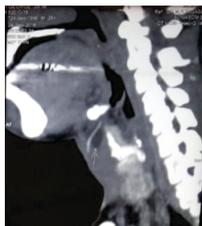


Fig 2. CECT Neck showing areas of necrosis and abscess formation



Fig.3. Purulent discharge from abscess after incision and drainage of abscess was done.

Methylene Blue was injected through a small granulation tissue in the Scar. Skin crease incision was made along the scar and all stained areas and tract was incised in toto along with a portion of the hyoid bone.



Fig. 4. : Intraoperative thyroglossal fistula tract was identified by using methylene blue dye injection and tract excised in toto.

As there was a lot of fibrosis of the neck muscles and loss of fascial planes due to inflammation. The surgery was challenging. Intraoperative blood loss was slightly on the higher side. The postoperative period was uneventful and patient made a slightly delayed but complete recovery.



Fig.5. Postoperative picture after 45 days postoperative period

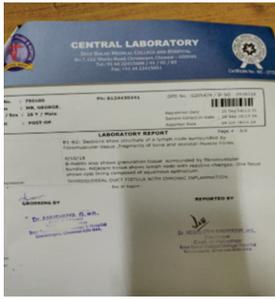


Fig.6. Histopathology report

DISCUSSION:

The thyroid gland originates at the foramen cecum of the tongue, at the apex of the V-shaped sulcus formed by the circumvallate papillae. During the fourth week of gestation, a ventral diverticulum of the foramen cecum is formed from the first and second pharyngeal pouches. This diverticulum, with its narrow neck connected to the tongue, descends in the midline of the neck as the thyroglossal tract to the position of the normal thyroid in the base of the neck, where the thyroid lobes separate, by the seventh week. The path of descent is usually anterior to the hyoid bone, but may be posterior to or through the bone and ends on the anterior surface of the first few tracheal rings.

The tract usually atrophies and disappears by the tenth week of gestation, but remnants of the tract and thyroid tissue associated with it may persist at any point between the tongue and the thyroid. A thyroglossal duct cyst arises as a cystic expansion of a remnant of the thyroglossal duct tract. The stimulus for the expansion is not known; one theory is that lymphoid tissue associated with the tract hypertrophies at the time of a regional infection, therefore occluding the tract with resultant cyst formation.

The cyst may occur anywhere along the thyroglossal duct tract from the foramen cecum at the base of the tongue to the level of the suprasternal notch. In most cases, the cyst is at or just below the hyoid bone adjacent to the thyrohyoid membrane. Cysts below the thyrohyoid membrane are rare.

CONCLUSION:

Our case report indicates that a strict aseptic precaution should be followed during invasive procedures like FNAC as FNAC is the first line of investigation for most Head and Neck swellings. The presence of infection delays the procedure and wound healing with an increase in scarring.

REFERENCES:

1. Mondin V, Ferlito A, Muzzi E, Silver CE, Fagan JJ, Devaney KO, Rinaldo A. Thyroglossal duct cyst: personal experience and literature review. *Auris Nasus Larynx*. 2008;35(1):11-25. doi: 10.1016/j.anl.2007.06.00
2. Dedititis RA, Guimarães AV. Papillary thyroid carcinoma in thyroglossal duct cyst. *Int Surg*. 2000;85(3):198-201.
3. Mahnke CG, Jänig U, Werner JA, Rudert H. Primary papillary carcinoma of the thyroglossal duct: case report and review of the literature. *Auris Nasus Larynx*. 1994;21(4):258-263.
4. Stell and Maran Textbook of Head and Neck Surgery – 4th edition
5. Thyroglossal Duct Cyst — More Than Just an Embryological Remnant - Sujatha Narayana Moorthy and Rekha Arcot, *Indian J Surg*. 2011 Jan; 73(1):28-31.
6. Soni S1, Poorey VK1, Chouksey S1. - Thyroglossal Duct Cyst, Variation in Presentation, Our Experience. - *Indian J Otolaryngol Head Neck Surg*. 2014 Dec; 66(4):398-400. doi: 10.1007/s12070-014-0724-4. Epub 2014 May 15.
7. Tamiolakis D1, Chimona TS, Proimos E, Georgiou G, Perogamvrakis G, Papadakis CE. - Thyroglossal duct cyst: case series. *Chirurgia (Bucur)*. 2008 Nov-Dec; 103(6):699-703