

Nasopharyngeal presentation of second branchial cleft cyst: diagnosis and surgical management – case report of 29-year-old female patient- POSTER presentation

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Branchial cleft fistulae are rare congenital abnormalities that arise from the abnormal persistence of branchial apparatus remnants. A complete fistula is a tract that has an internal opening and an external opening. Second branchial cleft fistulae pass deep to second arch structures and over third arch structures, in a direction extending from the anterior border of the sternocleidomastoid (SCM) muscle to the upper pole of the ipsilateral tonsil fossa. Because of this anatomical route, these long tubular structures are intimately associated with major neuro-vascular structures in the neck. Fistulae are usually clinically apparent after birth with up to 80% being diagnosed before the age of 5 years. There may be an obvious opening in the anterior neck between the hyoid bone and suprasternal notch. Treatment is complete surgical excision and extirpation in toto of all abnormally placed epithelium, while preserving surrounding neurovascular structures and using cosmetically acceptable incisions. Complete fistulae in adults are rare and diagnosis can be difficult. Second branchial cleft cysts are the most common neck masses found in adults. However, the parapharyngeal or pharyngeal presence of branchial cleft cyst is very rare. It occurs as cervical sinus that temporarily appears in the process of branchial apparatus developing into various structures of the neck, and is not closed but remains to exist. However, there is a very rare case where second branchial cleft cyst appears in the form of cystic mass that is located in the parapharyngeal or pharyngeal space. A rare location in the pharyngeal presence has been shown in only three cases in the world. We report one case of nasopharyngeal branchial cleft cyst in adults. We present the clinical presentation and surgical management of a sized cystic structure (40x25x9 mm), second branchial cleft cyst, pharyngeal presentation located from the epipharyngeal space to the hyoid bone in a 29-year-old female patient with main complaints of a swelling sensation of the pharynx, dysphagia and throat pain that had continued 2 days before otorhinolaryngologist-examining.

Preoperative CT scans of the neck clearly demonstrated the cyst. Biopsy revealed a squamous lined epithelial wall with lymphoid aggregation, which is characteristic of the branchial cleft cyst. We recommend intra-oral surgery to allow safe and complete extirpation per via naturale. The author completely removed the cyst in intraoral approach for cystic mass in the pharyngeal space. We performed a transoral resection without any surgical complications - one day surgery. The excision of the cyst was performed in incision (extirpation) of left oropharyngeal membrane under general anesthesia.

Keywords: branchial region, cysts, oropharynx, congenital neck masses