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An Unusual Case of Parapharyngeal Teratoma Presenting As Discharging Sinus in the Neck- A Case Report

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ABSTRACT

Teratomas are rare germ cell tumours with an incidence of approximately 1 in 4000 live births, of which only 3–10% occur in the head and neck region, most commonly in the neck followed by the nasopharynx. Case details - A 13-year-old female presented to the Department of ENT, AGMC, with a right jaw swelling for 10 years and persistent discharge for 5 years. Clinical examination revealed a fistulous tract extending to the posterior pillar of the right tonsil. The lesion was completely excised, and histopathology confirmed a mature (benign) teratoma. Parapharyngeal teratomas are extremely rare, accounting for about 0.5% of head and neck tumours, and are usually benign in the paediatric population. Imaging modalities such as CT and MRI are essential for assessing extent, and complete surgical excision remains the treatment of choice.

INTRODUCTION

Teratomas are rare germ cell tumours with an incidence of approximately 1 in 4000 live births[1], of which only 3–10% occur in the head and neck region[2,3]. They most commonly present in the cervical region, followed by the nasopharynx[2]. These tumours may be associated with other congenital anomalies of the head and neck in about 6% of cases, including cleft palate and cleft uvula[4]. Due to their rarity and variable presentation, early recognition and appropriate evaluation are essential for optimal management[2,3].

CASE HISTORY

A 13-year-old female presented to the Department of ENT, AGMC, with a history of swelling over the right jaw region for the past 10 years. The swelling was insidious in onset and gradually progressive in nature. It was associated with persistent purulent discharge from the same site for the last 5 years. There was no history of acute pain, fever, dysphagia, odynophagia, dyspnoea, or significant weight loss. There was no prior history of trauma, surgery, or tuberculosis.

On general physical examination, the patient was stable with no signs of systemic illness. Local examination of the neck revealed a discharging sinus located over the upper third of the right sternocleidomastoid (SCM) muscle, with intermittent purulent discharge(Fig 2). The surrounding skin

showed mild induration but no signs of acute inflammation. On palpation, a firm, non-tender swelling was noted in the right submandibular region.

Intraoral examination revealed an enlarged right tonsil with medial displacement(Fig1).Associated with congenital anomalies, including a cleft palate and deviation of the uvula towards the right side. There was no evidence of trismus or airway compromise.

Radiological investigations were performed to assess the extent of the lesion. Ultrasonography (USG) of the neck revealed a heterogeneous lesion in the right peritonsillar region. Contrast-enhanced CT (CECT) neck and MRI neck showed a well- MRI reveals a well-defined, heterogeneous lesion in the right parapharyngeal space with areas of fat, cystic components, and soft tissue intensity, causing displacement of adjacent structures. with a possible fistulous tract communicating externally(Fig 3).

Microbiological analysis of the sinus discharge, including CBNAAT, was negative for Mycobacterium tuberculosis, and routine cultures did not reveal any significant pathogenic growth.

Based on clinical and radiological findings, a provisional diagnosis of a chronic discharging sinus secondary to deep neck space infection was made. The patient was planned for surgical management. Under general anaesthesia, complete excision of the sinus tract was performed. Intraoperatively, the tract was found to extend deep into the parapharyngeal space, reaching up to the posterior pillar of the right tonsil. The tract was carefully dissected and excised in toto.

The postoperative period was uneventful, and the patient showed good recovery. The excised specimen was sent for histopathological examination(Figure 4 and 5) , which revealed the presence of mature tissues derived from multiple germ layers, confirming the diagnosis of a mature (benign) teratoma(Fig 6).

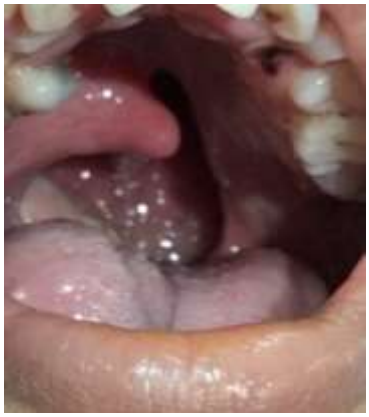

Fig 1 – Medial displacement of right tonsil with deviation of uvula

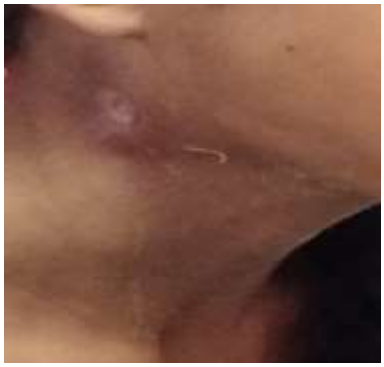

Fig 2- Discharging sinus located over the upper third of the right sternocleidomastoid (SCM) muscle

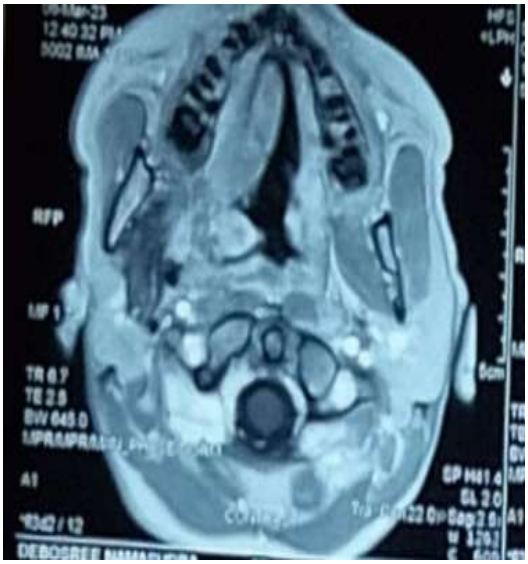

Fig 3 - MRI reveals a well-defined, heterogeneous lesion in the right parapharyngeal space with areas of fat, cystic components, and soft tissue intensity, causing displacement of adjacent structures.

Fig 4 – Intraoperative Excision of Parapharyngeal mass

Fig 5– Parapharyngeal mass measuring approximately 6.5cm

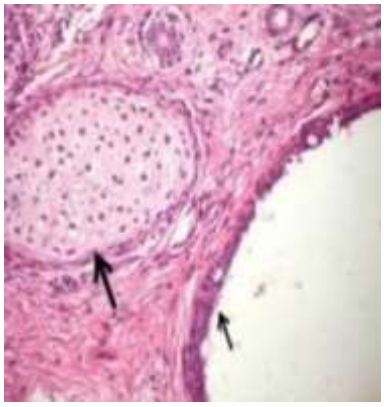

Fig 6- HE staining is suggestive of Benign Teratoma having all germ layers

DISCUSSION

_A teratoma occurring in parapharyngeal space is very rare ,accounting for about 0.5% of Head & Neck tumour. Most teratomas occurs in the sacrococcygeal region,gonad ,mediastinum and retroperitoneum .Teratomas found in paediatric populations are typically benign in nature. Sign and symptomps of parapharyngeal tumour are often subtle until tumour has substantially enlarged .Mostly patients presented with asymptomatic mass, bulging of soft palate or tonsillar region,lump at angle of mandible ,fullness of neck ,foreign body sensation throat, cranial nerve deficit. Radiological examination like CT , MRI neck helps to locate the tumour. & its extention. High degree of suspicion is necessary for diagnosing the case and treatment is complete excision .

CONCLUSION

Parapharyngeal teratomas are exceptionally rare benign germ cell tumours in the paediatric age group and may present with atypical clinical features, leading to delayed diagnosis. This case highlights the importance of considering teratoma in the differential diagnosis of long-standing parapharyngeal masses associated with persistent fistulous discharge. Detailed clinical evaluation combined with appropriate radiological imaging is crucial for accurate diagnosis and surgical planning. Complete surgical excision remains the definitive treatment and is associated with an excellent prognosis. Histopathological examination is essential for confirming the diagnosis and excluding malignant transformation. Early recognition and timely intervention can prevent long-term complications and ensure favourable outcomes.

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