

PLEOMORPHIC ADENOMA ARISING FROM TAIL OF PAROTID GLAND : A DIAGNOSTIC DILEMMA

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ABSTRACT

Lesions of the tail of the parotid gland are difficult to assess clinically and pose a diagnostic dilemma. Pedunculated lesions of the tail of parotid gland may be mistaken for an extra parotid lesion. FNAC and ultrasound is essential to confirm the diagnosis. In this case report, we present a case of a pleomorphic adenoma arising from the tail of the parotid gland, which is located posteroinferior to the angle of mandible. FNAC and ultrasound were done and both reported Pleomorphic adenoma. During surgery the swelling appeared as a pedunculated mass arising from tail of parotid. The mass was removed leaving behind the normal Parotid gland with intact facial nerve. Pedunculated lesions arising from the tail of the parotid gland can appear in extra parotid location. Therefore, the knowledge of parotid gland anatomy is essential.

KEYWORDS : Abductor Lurch, PSO, Pelvic Support Osteotomy, Painful Limp, Shortening, Femoral Shortening

Less than 3% of all neoplasms arise in the salivary glands. At least 75% of these tumors are benign. Majority of tumors develop in the parotid gland. Around 63.3% of Parotid tumours are of Pleomorphic adenoma type. Within the Parotid gland tumors, majority develop in the superficial lobe. In this part of the gland, they usually arise in the posterior aspect where they fill the retromandibular fossa. Rarely pedunculated masses arise from the inferior aspect of the superficial lobe (tail of parotid). The tail of parotid lesion is difficult to assess clinically and presents a diagnostic challenge to clinicians. Pedunculated parotid tail mass can easily be mistaken for a nonparotid mass cystic mass or lymph node. Clinically the lesion appears very superficial. So other investigations like FNAC and USG are essential to assist the clinical diagnosis. Enucleation or extra capsular dissection is acceptable in those rare situations when the tumour is hanging off the inferior pole of the parotid gland (Michael & Roderick, 2008 and John et al.).

CASE REPORT

A 20 year old female presented in the department of ENT at SHKM Government Medical College, Nalhar, Mewat, Haryana with a history of lump in the left side of neck since 5 months. On clinical examination, a lump of around 3cmx3cm was palpable posteroinferior to the left angle of the mandible (figure 1). Lump appeared to be very superficial. Lump was spherical in shape with smooth

surface and definite margin. On palpation, lump was firm in consistency throughout with normal overlying skin temperature. It was non-fluctuant, non-compressible, non-pulsatile, non-reducible and there was no impulse on coughing. Mobility was present in all directions and skin was free from underlying structure. No other significant lump was palpable in the neck or in any part of the body. Nasopharyngoscopy and laryngoscopy did not reveal any mucosal lesion in the posterior nasal space, oropharynx, hypopharynx or in the larynx. Clinically a probable diagnosis of cervical lymph node/cystic swelling of neck were considered.

Fine needle aspiration (FNA) and ultrasound of neck were performed. FNA of the lesion showed epithelial cells arranged in groups with interdigitating stromal fragments and dispersed singly. These cells had round to ovoid uniform bland nuclei and scanty to moderate amount of ill defined basophilic cytoplasm. Background showed stromal fragment, few inflammatory cells and was typical of a pleomorphic adenoma (figure 4). Ultrasound of neck showed a circumscribed hypoechoic area of size about 22x 21 mm at the inferior end of parotid gland near the submandibular gland suggestive of adenoma of Parotid gland.

A decision to perform excision of the lump under general anesthesia was planned. Two percent lidocaine with 1:2,00,000 adrenaline was infiltrated around the surgical

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Figure 1 : Mass posteroinferior to Angle of Mandible

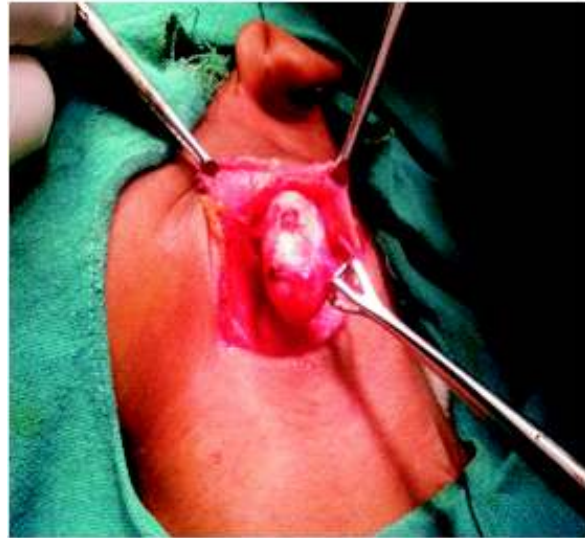


Figure 2 : Mass Completely Exposed



Figure 3 : Completely Excised Mass

field. A horizontal skin crease incision was given at the inferior end of swelling. An incision was carried through the fascia and platysma. Subplatysmal dissection was done. Superior and inferior flaps were raised and stay sutures given. Dissection was done and the lump was fully exposed (figure 2). Lump was anterior to the sternocleidomastoid muscle and hanging below the tail of the parotid gland. The lump was excised completely (figure 3), taking care not to injure the inferior branches of the facial

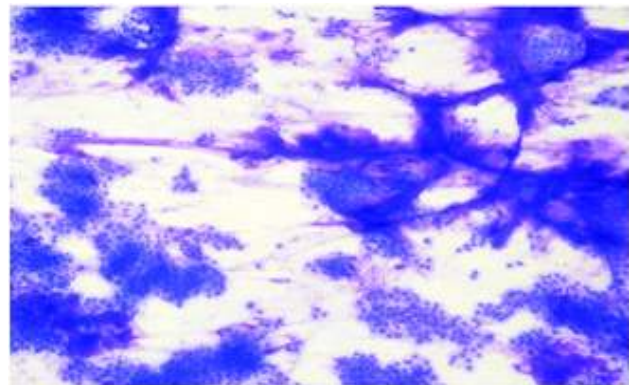


Figure 4 : FNA Smears Reveal Sheets of Epithelial Islands of Epithelial Cells and Abundant Fibromyxoid Stroma

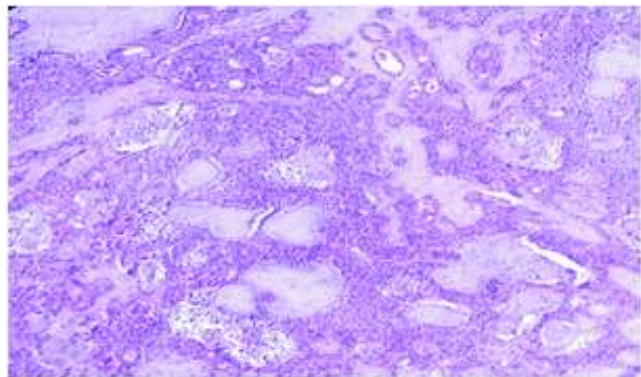


Figure 5 : Microsections Reveal Nests and Appearing to be Melting Into the Stroma. Foci of cartilages are Also Present

nerve and was sent for histopathological examination. Haemostasis was achieved and wound was closed in layers.

Histopathology of the excised specimen showed well encapsulated tumor composed of glands lined by cuboidal epithelium with chondromyxoid stroma consistent with a diagnosis of a pleomorphic adenoma (figure 5).

DISCUSSION

The parotid gland tail is an anatomically challenging area for clinicians. For clinicians, it can be difficult to correctly localize a mass at the angle of the mandible as parotid in origin versus submandibular gland or extrinsic lymph node in origin. This is particularly true in which a mass is pedunculated, arising from the inferior margin of the parotid gland. The parotid gland is a fascial-covered organ that is suspended from the zygomatic arch (Bannister, 1995 and Hamilton et al., 2003). The superficial lobe is considered to represent the palpable, dominant portion of the gland, usually accounting for approximately 80% of the total gland.

The parotid tail is a complex anatomic area that is prone to confusion. Many surgeons consider the parotid tail to comprise the entire retromandibular part of the parotid gland and inferior to the main trunk of the facial nerve. The parotid tail is the most inferior portion of the superficial lobe (Bannister, 1995). It is composed of a triangular shaped area of tissue deep to the platysma muscle, posterolateral to the posterior belly of the digastric and anterolateral to the sternocleidomastoid muscle. The posterior belly of the digastric separates the parotid tail from the adjacent carotid space. The most inferior aspect of the gland usually terminates at the level of the angle of the mandible, although this is variable. Most parotid tail masses present as angle of mandible masses. Although Otolaryngologists can usually differentiate an intraparotid mass from an adjacent mass or lymphadenopathy, they do recognize that this distinction can at times be difficult. Similarly, masses at the angle of the mandible, such as an enlarged lymph node, may be mistaken for a parotid tail mass. Furthermore, fine-needle aspiration, although helpful in surgical planning, lacks the necessary

accuracy for differentiating benign from malignant lesions (Zbaren et al., 2001). Although most parotid masses are benign, removal is required for histopathological confirmation. Overall, Pleomorphic adenoma is the most common parotid tumor. Usually superficial parotidectomy is performed in most cases except pedunculated lesion arising from the tail of the parotid for which enucleation is sufficient (Michael and Roderick, 2008 and John et al.). Most otolaryngologists perform superficial parotidectomy for benign lesions and low-grade malignancies.

CONCLUSION

Lesions of the parotid 'tail' are a diagnostic challenge to clinicians. Pedunculated lesions arising from the tail of the parotid gland can appear extra parotid in location. So, all retromandibular masses should be looked upon with suspicion and investigations like FNAC and ultrasound must be done to confirm the diagnosis. The knowledge of parotid gland anatomy is essential in the accurate localisation of these lesions.

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