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RESEARCH ARTICLE

ACCESSORY PAROTID GLAND TUMOR EXCISION - PRESENTING AS MID CHEEK MASS

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Abstract

Introduction: Tumors of the accessory parotid gland are rare, accounting for approximately 1% of all parotid gland neoplasms[1]. Despite their infrequency, these lesions carry a comparatively higher risk of malignancy, with reported rates ranging from 26% to 50%[2]. They typically present as painless, mid-cheek swellings and are diagnosed through imaging and cytological evaluation. We present a case of pleomorphic adenoma arising from the accessory parotid gland, managed surgically with favourable outcomes.

Case Presentation: A 47-year-old male presented with painless swelling which was gradually increasing in size, in the right mid-cheek for the past six months.On examination, the swelling measured approximately 2x2 cm, was non-tender, firm, mobile in both axes, and not adherent to the underlying structures. Ultrasonography (USG) and fine-needle aspiration cytology (FNAC) supported a diagnosis of pleomorphic adenoma involving the accessory parotid gland.Managed surgically by mid cheek incision and excision of the accessory parotid gland tumor. Postoperative recovery was uneventful, with no facial nerve impairment. Histopathological analysis confirmed the diagnosis.

Introduction:-

Accessory parotid glands, present in 21–61% of the population [3,4], are ectopic salivary tissues located anterior to the main parotid gland, often connected to Stensen's duct via independent ductal structures[5]. Despite their frequency as anatomical variants, neoplasms arising from these glands are rare, constituting only about 1% of all parotid tumors[1].However, these tumors are more likely to be malignant than those in the main gland, with malignancy rates between 26–50% compared to 18.5% in the primary parotid tissue [2].

Patients often present with a painless mid-cheek swelling, which is typically slow growing. Radiological imaging and cytological assessment are essential for diagnosis. Surgical resection remains the cornerstone of treatment, with incision types include modified Blair's, transoral, or mid-cheek approaches.

Case Presentation

A 47-year-old male with a background of well-controlled type 2 diabetes mellitus and hypertension reported a six-month history of a right mid-cheek swelling. The lesion was painless, progressive, and not associated with change in

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size when chewing or eating. On examination, a 2×2 cm firm, mobile in both axes, non-tender mass was noted, not adherent to surrounding structures.

An ultrasound of the right cheek revealed a hypoechoic lesion in the accessory parotid gland, with posterior acoustic enhancement. The lesion measured 2.2x1.4 cm and was likely an adenoma. No calcifications, cystic changes, or vascularity were observed. The right parotid gland appeared normal.

Fine needle aspiration cytology (FNAC) of the right preauricular swelling revealed a cellular smear showing sheets of ductal epithelial cells along with numerous myoepithelial cells embedded in a fibrillary chondromyxoid stroma, which was consistent with a diagnosis of pleomorphic adenoma. This lesion was classified as a Milan category 4A benign neoplasm.

After obtaining informed consent—during which potential complications, including the risk of damage to the distal branches of the facial nerve, were thoroughly discussed—a surgical procedure was scheduled. A 4 cm horizontal incision was then placed in the mid-cheek region to initiate the operation.The tumor was meticulously dissected off the masseter muscle while preserving the buccal and zygomatic branches of the facial nerve. The excised specimen was sent for histopathology, which confirmed pleomorphic adenoma (1.7×1.5×1.3 cm). The patient recovered uneventfully with no postoperative facial nerve dysfunction.

Discussion:-

The parotid gland originates from ectodermal tissue during the sixth week of gestation, with accessory parotid glands representing ectopic salivary tissue located anterior to the main gland [6]. Although common anatomically, tumors in accessory parotid glands are uncommon and diagnostically challenging due to their location and potential proximity to facial nerve branches.

Clinically, these tumors usually present as painless masses. In some cases, obstruction of Stensen's duct may cause secondary swelling or discomfort. Given their mid-cheek location, accessory gland tumors often lie between the buccal and zygomatic branches of the facial nerve, posing challenges for surgical access and increasing the risk of nerve injury.

Differential diagnoses include benign and malignant salivary gland tumors, lipomas, neurogenic tumors, lymphadenopathy, Kimura disease, and vascular anomalies such as hemangiomas. Pleomorphic adenoma is the most frequently encountered histological type in accessory parotid tumors, followed by mucoepidermoid carcinoma [7–9].

Initial evaluation should include a thorough physical examination, imaging, and FNAC. Ultrasonography serves as a valuable first-line modality for localization and characterization of the lesion. Contrast-enhanced CT and MRI provide detailed assessment of lesion extent and tissue involvement. In this case, ultrasound and FNAC were sufficient for diagnosis; further imaging was not required.

FNAC provides critical histological insight to guide surgical planning [10].Surgical excision can be performed via various approaches, including modified Blair's, mid-cheek, or transoral incisions[11]. The modified Blair's approach offers good exposure but may lead to temporary facial nerve paresis in up to 7% of cases, while the mid-cheek approach, though associated with a higher risk of nerve damage (up to 33%) [12], provides direct access and improved cosmetic outcomes.

Based on our clinical observations, the traditional parotidectomy incision—which necessitates wide exposure of the facial nerve—can occasionally lead to avoidable trauma to its distal branches. Alternatively, the mid-cheek incision provides a more direct and minimally invasive route, offering a shorter operative time, fewer complications, and a lower risk of tumour seeding [13]. This made it the technique of choice in our case. When planning surgery for accessory parotid gland tumors, such practical factors play a key role in selecting the most suitable approach. It is widely acknowledged that locating the distal branches of the facial nerve prior to tumor dissection is essential. Our experience supports this practice, underscoring the need for meticulous identification and preservation of these branches during resection. Such diligence minimizes unnecessary nerve exposure and helps reduce the likelihood of iatrogenic injury.

Figures:-

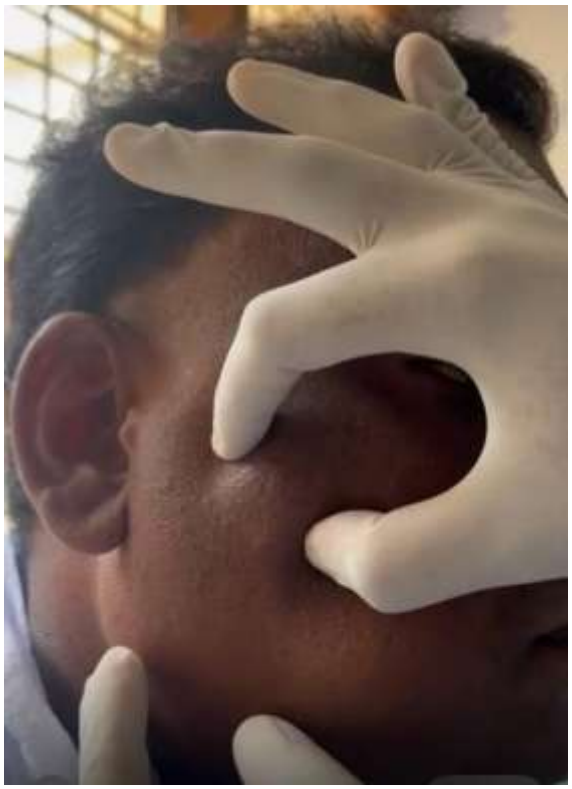

Fig 1:- A well-defined mid cheek swelling on the right side of the face.

Fig 2:- Intra operative finding of right accessory parotid tumour through right cheek incision.

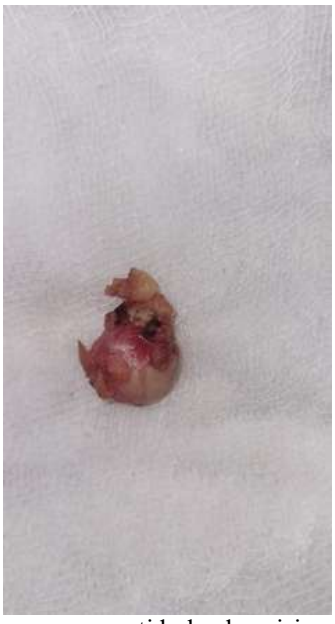

Fig 3:- Accessory parotid gland excision specimen.

Fig 4:- Post operative status of the patient with cheek scar and no postoperative facial paralysis

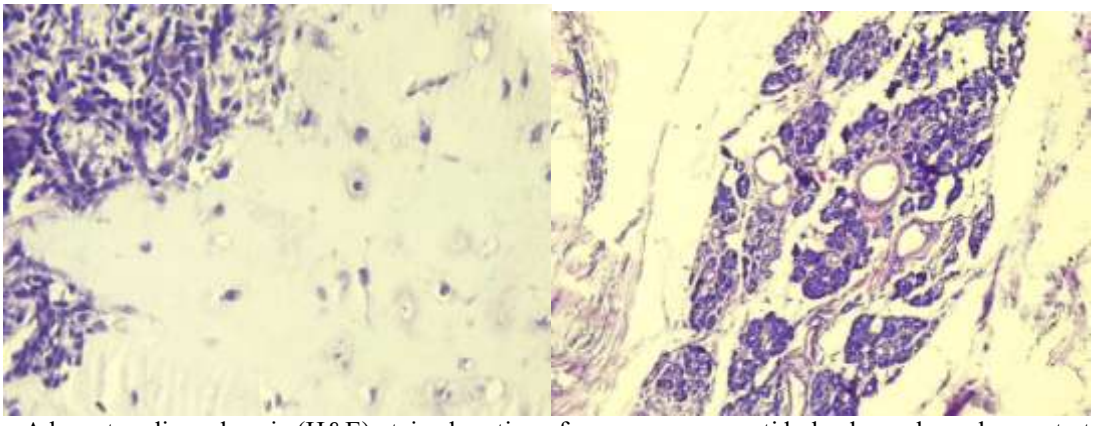

Fig 5:- A hematoxylin and eosin (H&E)-stained section of an accessory parotid gland neoplasm demonstrates the characteristic triphasic architecture, comprising ductal (epithelial), myoepithelial, and stromal elements. The stroma often exhibits a chondromyxoid or myxoid appearance, which is a hallmark of this tumor type.

Conclusion:-

Accessory parotid gland tumors are rare, with a higher likelihood of malignancy than their main parotid counterparts. Accurate diagnosis requires a combination of clinical, radiological, and cytological assessments. Surgical excision remains the definitive treatment, and the mid-cheek approach provides a viable and cosmetically favorable option when facial nerve preservation is prioritized. Given the rarity of such tumors, further studies are necessary to establish optimal diagnostic and surgical protocols.

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