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Surgery

A Case of Pleomorphic Adenoma Arising from Accessory Parotid Gland- Intraoral Incision Approach for Successful Cosmetic and Nerve Preservation

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Abstract **Case Report**

***Introduction*:** Pleomorphic adenoma is the most common tumor of the major and minor salivary glands. Rarely it is found evolving from an ectopic location of major salivary glandular tissue in the mid-cheek (2%). The palate is considered the most common intraoral site (42.8-68.8 %), followed by the upper lip (10.1 %) and cheek (5.5 %). ***Case Presentation*:** 45-year-old woman presented to our institution with a 12 year duration of a slowly growing left cheek soft mass that was causing facial asymmetry. No significant functional or neurosensory dysfunction was appreciated. Radiologic examination MRI showed a well-defined T1 isointense, T2/STIR heterogeneously hyperintense lesion with few cystic lesions within, showing diffusion restriction on DWI, measuring about (3x2.6x1.8) cm noted in the subcutaneous plane of left check region. A clinical suspicion and probable diagnosis was considered as likely to be soft tissue AV malformation (?hemangioma). However, fine-needle aspiration biopsy showed benign salivary gland elements consistent with diagnosis of pleomorphic adenoma was made. The decision was made to perform intraoral extracapsular dissection for removal. The accessory gland was identified and was excised with the accessory duct. Patient had good cosmetic satisfaction with the intraoral approach. ***Results and Conclusion*:** To conclude, accessory parotid gland tumours are extremely rare and represent a diagnostic problem. Appropriate pre-operative workup like careful physical examination, MRI, fine needle aspiration biopsy and well-planned surgical approach are necessary for the successful management of these lesions. We recommend an intra-oral approach is safe, effective and cosmetically acceptable.

Keywords: Pleomorphic Adenoma, Accessory Parotid Gland, Intraoral Approach, Cheek Mass, Salivary Gland Tumor.

INTRODUCTION

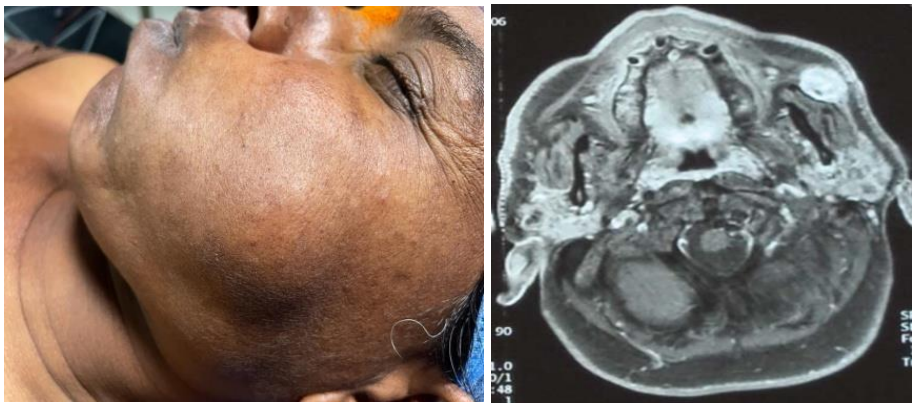
Around 21% of the population harbour accessory parotid glands from where pleomorphic adenoma can arise, which presents as a painless cheek mass [1]. The incidence of pleomorphic adenoma arising from the accessory parotid gland is just 1-7.7% [2]. Most of the literature describes the accessory parotid glandular tissue arising adjacent to, but completely independent of the ipsilateral main body of the parotid gland by fascial planes. It is often described in the mid-cheek region and usually found along the Stensen duct on a diagrammatic line that would extend from the tragus to a point midway between the ala of the nose and the vermilion border of the upper lip. The APG is considered a functional unit with multiple connections to the Stensen duct and lies intimately between the buccal and zygomatic branches of the facial nerve.

Various surgical approaches for the primary treatment of accessory parotid solid tumours have been established: (1) A standard parotidectomy incision, (2) The intraoral approach, and (3) A direct skin incision. In cases of pleomorphic adenoma arising from the accessory parotid gland, the intraoral incision approach offers several advantages. It allows for precise identification and dissection of the tumour while

minimising the risk of damage to the facial nerve and surrounding structures.

CASE REPORT

A 45-year-old female presented with a slow-growing left cheek painless tumor since 12 years. No h/o facial asymmetry. On examination, a swelling of size 3x2.5 cm was noted over the left mid cheek, 1 cm below the left zygomatic bone. Non tender, firm in consistency. The mass was well-defined, with rounded margins, free from the skin and underlying structures. The mass was elicited in submasseter plain. Intra oral examination reveled swelling was palpable within the left buccal mucosa. There were no palpable lymph nodes in the neck. Facial nerve examination were within normal limit.



CLINICAL PICTURES:

INVESTIGATIONS

Fine-needle aspiration cytology showed benign salivary gland elements consistent with pleomorphic adenoma. Radiologic examination: MRI showed A well-defined T1 isointense T2/STIR heterogeneously hyperintense lesion with few cystic within showing diffusion restriction on DWI measuring about 3x2.6x1.8 cm noted in the subcutaneous plane of left check region –likely soft tissue tumor.

SURGERY

Surgery was conducted under general anesthesia. A 2.5 cm intra oral left buccal mucosal incision was taken. The identified anatomic layers included the mucosa, submucosa and the buccinator muscle. The accessory gland was approached and excised after ligating the accessory duct. Mucosa was closed with vicryl 3-0 intermittent sutures. The patient was discharged 3 days after surgery. Mucosa healed within 7 days uneventfully.

INTRA OP PICTURES:

HISTOPATHOLOGY REPORT

HPR stated: Tumor tissue comprised of epithelial and mesenchymal component. Epithelial component is comprised of cells arranged in glandular pattern glands are lined by low cuboidal epithelium lumen showed hyaline globule. Mesenchymal component composed of abundant cartilaginous fibro myxoid stroma with presence of spindle shaped cells suggestive of pleomorphic adenoma

FOLLOW UP PICTURES

DISCUSSION

Differential diagnosis of mid cheek soft tissue neoplasm includes inclusion cysts, hemangioms, lipomas, neurofibromas, schwanomas, fibromas and sialo Celes. An estimated 50% of accessory parotid gland tumours are malignant [3]. Histologically, pleomorphic adenoma is the most common benign tumour of accessory parotid glands, with mucoepidermoid carcinoma being the most common malignant tumour [4]. FNAC makes an especially important contribution to decisions regarding surgical approach. The standard parotidectomy incision has been the most common and remains the recommended approach for complete tumour excision and prevention of facial nerve and Stensen's duct injury, regardless of whether the tumour is benign or malignant. However, this approach is associated with a skin scar and neuropraxia. The intraoral incision approach has the advantage of having no skin incision on the face, and it prevents facial nerve injury and injury to the surrounding structures. However, intraoral incisions must be strictly limited for use on accessory parotid gland tumors that are less than 30 mm and benign.

CONCLUSION

An intra-oral approach avoids facial nerve injury and morbidity associated with it. It does not require intraoperative nerve monitoring as direct dissection around the nerve is avoided. complete excision is possible without scar over the face and is cosmetically acceptable.

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