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PLEOMORPHIC ADENOMA OF SUBMANDIBULAR SALIVARY GLAND : A CASE REPORT

General Surgery

Dr. Santhosh Kumar M* Post Graduate Department of General Surgery, Tagore Medical College and Hospital. *Corresponding Author

Dr.Preethiya S MS, Assistant Professor Department of General Surgery Tagore Medical College and Hospital

ABSTRACT

Salivary gland tumors constitutes about 3-4% of all head and neck tumors. Most common salivary gland tumor is pleomorphic adenoma ,which is benign and have least chance of malignant transformation . Pleomorphic adenoma is most common in parotid gland and its occurrence in the submandibular or the sublingual gland is uncommon . This case report is about a 28 years old male who presented with painless swelling in submandibular region and found to have pleomorphic adenoma which was proven histologically.

KEYWORDS

Pleomorphic Adenoma, Submandibular Salivary Gland

INTRODUCTION

Salivary gland tumors constitutes about 3-4% of all head and neck tumors[1]. Most common salivary gland tumor is pleomorphic adenoma which is benign and have least chance of malignant transformation. Pleomorphic adenomas account for 70-80% of benign salivary gland tumors and are especially common in the parotid gland[2]. Mainly it involves superficial lobe of parotid gland. Distribution among the various salivary gland are

- Parotid gland: 84%
- Submandibular gland: 8%
- Minor salivary glands: 6.5%

This case report presents a case of a histologically proven case of Pleomorphic adenoma involving the submandibular gland.

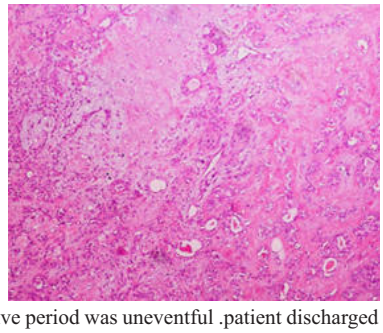
CASE REPORT

A 28 years old male presented with Complaints of swelling in neck for 3 months. The swelling was insidious in onset ,slowly growing progressed to present size and painless . No history of fever , no history of any oral ulcer , no history of swelling anywhere else in the body . History of smoking and alcohol intake for past 3 years . No other known comorbidities or previous radiation exposure . On examination of neck there is a 3 x 2 cm swelling in left side submandibular region , it was ovoid in shape . On palpation it was firm to hard in consistency , non tender ,well defined borders , freely mobile and not attached to any surrounding structures . On bidigital palpation swelling was ballotable. No hypoglossal or marginal mandibular nerve involvement. No palpable lymphnodes in neck.

A provisional diagnosis of tumor of left submandibular gland was made based on history and examination findings. Patient was advised for CT Neck to know the type and extent of lesion . CT Neck showed well defined relatively hyperdense lesion noted in posterior aspect of left submandibular gland measuring 2.2 x 1.9 cm , with normal submandibular gland in surrounding , no evidence of calcification . On FNAC features suggestive of pleomorphic adenoma of left submandibular salivary gland.

A provisional diagnosis of pleomorphic adenoma of left submandibular salivary gland was made and planned for excision of the gland under General Anaesthesia . Parts painted and draped . Patient in supine position, head turned to right side. Incision is made 3 cm below and parallel to margin of mandible of length 6 CM. Incision plane deepened , platysma incised, sub platysmal flap raised ,superficial lobe of gland exposed fully in digastric triangle between two bellies of digastric muscle and margin of mandible above with gland overlapping over mylohyoid muscle medially.

Anterior facial vein crossing superficial part of the gland is ligated . Marginal mandibular nerve identified and preserved. Fascia is incised and superficial lobe of gland is mobilised upwards. Facial artery in the deeper aspect of gland is ligated. Hypoglossal nerve and lingual nerve are identified and preserved . Mylohyoid muscle is retracted and deep portion of gland is removed . Submandibular ganglion identified ligated and cut .Wharton's duct is identified and ligated . gland excised in toto .Hemostasis achieved . Subplatysmal layer closed with vicryl, skin closed with monocryl .Specimen is sent for histopathological examination.



Post operative period was uneventful .patient discharged in POD – 5 . Histopathological examination showed grossly 2x2x1.5 cm nodule cut surface shows grey white, homogenous, firm in consitency with normal surrounding gland . Microscopy shows encapsulated benign neoplasm composed of epithelial and mesenchymal components. Glands are lined by round to oval cuboidal cells with vesicular nuclei , scanty cytoplasm and myoepithelial cells in a chondromyxoid stromal background. No cellular atypia noted. The final diagnosis of left submandibular pleomorphic adenoma was made.

INTRAOPERATIVE PICTURES

DISCUSSION

Salivary gland tumors constitutes about 3-4% of all head and neck tumors [1]. Most common salivary gland tumor is pleomorphic adenoma which is benign and have least chance of malignant transformation. Pleomorphic adenomas account for 70-80% of benign salivary gland tumors and are especially common in the parotid gland [2] . Pleomorphic adenoma is also the most frequent benign tumor arising in submandibular gland and constitutes about 50% of submandibular tumor [3]. Adenoid cystic carcinoma is the most common malignancy of submandibular gland. Others includes Carcinoma ex pleomorphic adenoma, mucoepidermoid carcinoma, non-Hodgkin's lymphoma and squamous cell carcinoma.[4]

As the name suggests, pleomorphic adenomas are composed of a mixture of variable histology. They contain both epithelial and myoepithelial (mesenchymal) tissues, with mixed histology. They appear encapsulated and well-circumscribed however the pseudocapsule is delicate and incomplete with microscopic extensions reaching beyond it, accounting for the high risk of recurrence when these tumors are enucleated [5,6].

Patient present with typical history of painless slow growing tumor . it can occur in all ages with highest incidence in 4th and 5th decade of life. Both sexes are equally affected. On examination they are mobile not attached to surrounding structures . lymphadenopathy and nerve compression are usually absent[7]. The cut surface is characteristically solid and may be hard, rubbery, or soft in consistency with a whitish gray to pale yellow color.

USG can diagnose most of the salivary gland diseases.[7] Pleomorphic adenomas are typically hypoechoic and may show posterior acoustic enhancement. Most salivary gland tumors are investigated by FNAC. The accuracy for the diagnosis of benign or malignant salivary gland tumor by FNAC is around 80–90%.[8] FNAC also helps to differentiate between tumors and inflammatory conditions or enlarged lymph nodes. Computerized Tomography (CT) scan or Magnetic Resonance Imaging (MRI) are the gold standard radiological tools for lesion arising from the salivary glands. The final pathologic diagnosis is always established based on the histopathological findings after surgical excision.

Total excision of the TUMOR WITH THE INVOLVE GLAND is the treatment of choice as presence of pseudopods will make this tumor high risk for recurrence. Injury to marginal mandibular nerve is common complication . Malignant transformation is rare but can occur in long standing cases so early excision is recommended.

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