



Cellular Pleomorphic Adenoma of Soft Palate with Lateral Extension- A Case Report

KEYWORDS

Pleomorphic adenoma, histopathological study, soft palate, oropharynx

Dr Manas Ranjan Rout

Associate Professor of ENT, ASRAM Medical College, Eluru

Dr Deeganta Mohanty

Assoc. Professor of ENT, ASRAM Medical College, Eluru

Dr C.P Das

Professor of ENT, ASRAM Medical College, Eluru.

ABSTRACT

Here we are reporting a case of Cellular pleomorphic adenoma of the soft palate.

A 50 years old female patient came to our ENT out patient department (OPD) with history of a swelling in the mouth since one year. It was progressively increasing in size to attend the present size. Since two month she stated with nasal obstruction.

On examination a smooth mass was found in the right side of the soft palate almost blocking the oropharynx. On Diagnostic nasal endoscopy mass was found to be extending to the nasopharynx. CT scan picture shows, that the heterogeneous mass extending up to the right pterygoid plate.

Patient was operated under general anesthesia with tracheostomy. Mass were removed completely and sent for histopathological study (HP study). Report conform the diagnosis as Cellular pleomorphic adenoma.

We are reporting this case for its rare occurrence and difficulty in management.

Introduction

The palate is divided in to two parts, the hard palate and the soft palate. Hard palate belongs to oral cavity where as soft palate belongs to oropharynx. Three types of tumors are commonly found in the oropharynx ie squamous cell carcinoma (90% cases), Non-Hodgkin's lymphoma (8% cases) and minor salivary gland tumors (2% cases) ¹. Pleomorphic adenoma is the commonest benign tumor of the salivary glands ². Benign tumors are more common then malignant tumors in major salivary glands. But in minor salivary glands the malignant tumors are more common then benign tumors.

Salivary gland tumor in the soft palate is commonly malignant. Benign tumor like pleomorphic adenoma is rare in soft palate.

Case Report

A 50 years old female patient came to our ENT out patient department (OPD) with history of a swelling in the mouth since one year. It was progressively increasing in size to attend the present size. Since two month she stated with nasal obstruction and now she is having bilateral complete nasal block. She was having difficulty in swallowing since 2 months. There is progressive change in the voice since 2 months. There was no history of pain in the throat or oral cavity, fever, headache etc.

Occupationally she is a house wife, taking mixed diet, not addicted to any thing. Her past and family histories are nothing suggestive. For this problem she had taken treatment near the local doctor without any relief.

On general examination patient was having average body built. Other clinical examinations were normal. There were no neck nodes.

On local examination, a smooth globular mass was found

in the region of the soft palate more towards the right side (Figure-1). Visible size of the mass was about 8 centimeter × 6 centimeters. The tumor was almost blocking the oropharynx. A very small opening was there from the oral cavity to the pharynx through which it was impossible to visualize the posterior pharyngeal wall. On palpation the mass was firm in consistency and immobile. Tonsil in the right side was not visible and left side of the tonsil was normal. The hard palate and the other parts of the oral cavity are normal.

As patient was having nasal obstruction we did diagnostic nasal endoscopy (DNE). On DNE, the mass was found to be extending to the nasopharynx in the form of a smooth bulge and blocking the whole of the nasopharynx. Computed tomographic scan (CT scan) picture showed a heterogeneous mass extending up to the right pterygoid plates without any evidence of bone erosion. Fine needle aspiration cytology (FNAC) was suggestive of pleomorphic adenoma.

So we have planned for the surgical excision of the tumor under general anesthesia. All the necessary investigations were done. As tumor was fully filling the oropharynx it was not possible to do intubation. So we did tracheostomy and anesthesia was given. A transverse incision was given right over the mass in the soft palate and tumor exposed. Tumor tissue was dissected out by finger dissection (Figure-2). Intra-operatively brisk bleeding was there which was controlled by pressure and diathermy cautery. Soft palate was repaired in two layers. Mass was sent for histopathological study (HP study).

Immediate post operative period was uneventful and the patient was doing well. On the second post operative day, patient developed severe hypertension (220/120) with breathlessness. Patient started bleeding from the operated site. So we had to give the oral pack for 24 hours.

Patient was in nil orally and tracheostomy tube was patent. Hypertension was effectively controlled by antihypertensive drugs by physician and strict supervision. Then patient started recovering slowly. Patient was able to take orally liquid diet on 5th postoperative day and tracheostomy tube was removed on tenth post operative day. Patient was discharged after next three days.

Histopathological report showed, encapsulated lesion composed of both stromal and epithelial component. Epithelial component consists of round to polygonal cells arranged in solid sheets and elongated strands heavy nuclei with coarse chromatin pattern and moderate cytoplasm. Some of the cells are plasmotoid in nature. There are plenty of mucin rich areas in which few plasmotoid cells are seen floating. Stromal component is made of abundant chondromyxoid substance. These features are suggestive of Cellular pleomorphic adenoma.

Discussion

The palate is divided anatomically into the hard palate (part of the oral cavity) and the soft palate (part of the oropharynx). Cancer of the soft palate accounts for approximately 2% of head and neck mucosal malignancies. However, in the soft palate, 80% of cancers are SCCs. Nonsquamous malignancies account for the other 20%.

Tumors of the soft palate can be classified as benign and malignant. The benign tumors are extremely rare when compared to malignant ones.

The histological types and frequencies of minor salivary gland neoplasms of the palate is as follows:

- Benign - 26%
- Malignant - 74% overall
- Adenoid cystic carcinoma - 30%
- Mucoepidermoid carcinoma - 16%
- Adenocarcinoma - 18%
- Malignant mixed tumor - 8%
- Other - 2%

A pleomorphic adenoma is the most common benign tumor in the salivary glands. It mainly occurs in the parotid gland and submandibular gland. If the tumor occurs in the minor salivary glands, the most common site is the palate, but this tumor can also occur in other sites include the upper lip, cheek, floor of the mouth, larynx and trachea (3).

A pleomorphic adenoma is a benign tumor, but it can metastasize, and especially when enucleation or incomplete excision is performed (4). A metastasizing pleomorphic adenoma is classified as a salivary gland tumor by the World Health Organization.

Most cases of a metastasizing pleomorphic adenoma are known to occur after surgical excision or local recurrence. The most frequent site of a metastasizing pleomorphic adenoma is the parotid gland, where complete excision is difficult due to the critical anatomical problems such as the presence of the facial nerve, followed by the presence of the submandibular gland and the minor salivary glands. The most common site of a metastasizing pleomorphic adenoma in the minor salivary glands is the palate (4). Although a metastasizing pleomorphic adenoma is rarely encountered, the head and neck surgeon should be aware that meticulous resection is necessary at the initial surgery for preventing distant metastasis and close postoperative follow-up should be done for detecting possible metastasis

(5).

Histologically pleomorphic adenoma is of many types (7). Cellular variant has got many cellular components. In our case, the epithelial component consists of round to polygonal cells arranged in solid sheets and elongated strands heavy nuclei with coarse chromatin pattern and moderate cytoplasm. Some of the cells are plasmotoid in nature. There are plenty of mucin rich areas in which few plasmotoid cells are seen floating. Stromal component is made of abundant chondromyxoid substance.

Conclusion

Benign tumor of soft palate is relatively rare than the malignant tumors. Pleomorphic adenoma of the soft palate is also rare than hard palate. The cellular variant of the pleomorphic adenoma is a rare tumor of the soft palate.

Treatment of pleomorphic adenoma is excision with histopathological study to rule out malignancy.

Acknowledgement

We are very much thankful to the

- Department of Anesthesia
- Department of Radiology
- Department of Medicine
- Department of Pathology



(Figure- 1: Palatal tumor)



Figure- 2: Intra operative picture of the palatal tumor

REFERENCE

1. Watkinson John C et al, Tumors of oropharynx; Stell and Maran's Head and Neck surgery, 4th edn, Butterworth- Heinemann publisher's, 2000, New Delhi; 319-334. | 2. Shaheen O H, Benign salivary gland tumors, Scott- Brown's otolaryngology, Laryngology and Head and Neck surgery; 6th edn, Butterworth- Heinemann publisher's; 1997, Great Britain, 5/20/1 – 5/20/18. | 3. Lomeo P, Finneman J. Pleomorphic adenoma of the soft palate. Otolaryngol Head Neck Surg. 2001 Jul;125(1):122. [PubMed] | 4. Nouraei SA, Ferguson MS, Clarke PM, Sandison A, Sandhu GS, Michaels L, et al. Metastasizing pleomorphic salivary adenoma. Arch Otolaryngol Head Neck Surg. 2006 Jul;132(7):788-793. [PubMed] | 5. Chang Hoon Bae et al, Benign Pleomorphic Adenoma of the Soft Palate Metastasizing to the Sphenoid Sinus, ClinExpOtorhinolaryngol. 2010 Sep; 3(3): 172-175. | 6. Arthur Jorge Padilha de Brito et al, Clinical and Histopathological Aspects of Soft Palate Tumors; International Archives of otolaryngology, Year: 2008 Vol. 12 Num. 2 - Abr/Jun - (3^o) | 7. Gary L. Ellis et al, Benign epithelial neoplasm; Atlas of tumor pathology, tumors of the salivary glands (3rd series), Armed force institute of pathology, Washington DC, 1996; 39-154.