ACINIC CELL CARCINOMA OF PALATE - A RARE PRESENTATION

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Abstract:

Acinic Cell Carcinoma is a rare epithelial malignant neoplasm of salivary glands affecting the female population rather than the males. Unusual occurences of this neoplasm is reported in hard palate , maxillary sinuses, lip etc. This paper presents a rare case in which a cyst which is provisionally diagnosed as dentigerous cyst due to its clinical and radiological findings, turned out to be acinic cell carcinoma on histopathological evaluation.

Introduction

Salivary gland neoplasms are rare when compared to the rest of neoplasms occuring in the maxillofacial region. It accounts for only 2 – 6.5% of all head & neck tumors[1,5,6]. One-fourth of the tumors of salivary gland occurs in minor salivary glands. Acinic cell carcinoma is a malignant epithelial tumor of salivary gland. It forms only 0.5% of tumors of minor salivary glands and 2.9% of major salivary glands. Acinar cell differentiation is present in this tumor. The malignant potential of this neoplasm is not well established and the fact that all the acinic cell carcinoma have at least a low grade malignancy potential is widely accepted[2].

Acinic cell carcinoma is seen most widely in the 4-6th [1,2]decades of life affecting women[1] than men in the ratio 3:2[2]. But in a study by Tian et al[12] males were more commonly affected. Its incidence in children is very negligible[14]. Gross appearance of the lesion is similar to that of pleomorphic adenoma. Acinic cell carcinoma may occur along with pleomorphic adenoma, oncocytoma, basal cell adenoma[4]. Its usual course follows an asypmtomatic painless mass which grows slowly, very rarely may be entirely cystic in nature [2,15]. The tumor may go unreported and undiagnosed for a number of years due to this character. Mostly the lesion is encapsulated and lobulated which prevents its recurrence. It mimics lymph node formation through its lymphoid stromata[7]. The common sites are parotid gland (80%), submandibular, sublingual glands and intra oral accesory salivary glands in lips and buccal mucosa[2].

Case report :

A 75-year old man attended the OPD of our college with the chief complaint of swelling and pain in the upper posterior

part of the jaw for one month. He was treated by incision and drainage in another hospital three weeks back for the same complaint. Oral examination revealed a 2×3 cm swelling on the left buccal edentulous sulcus in relation to the 25,26 region. Patient is totally asymptomatic except for the fact that the area was slightly tender. No regional lymphadenopathy present. Overlying mucosa was intact and normal in color and consistency. OPG , maxillary occlusal, IOPA view(Fig : 5 and Fig : 6) xrays were taken which shows a radiolucent lesion of size 3.5 ×2.5 cm on the left side of hard palate encircling an impacted maxillary molar. Aspiration of the lesion through the primary incision and drainage site yielded cystic fluid. A provisional diagnosis of dentigerous cyst was made and enucleation was planned.

After putting a crestal incision (Fig: 2) and raising the full thickness mucoperiosteal flap excision of the cyst in toto along with impacted teeth was done under local anaesthesia(Fig: 3). The specimen was sent for histopathologic examination . Primary closure was attempted but the wound broke down (Fig:4) .An acrlylic maxillary plate was given. Histopathology shows well differentiated tumor cells resembling normal acinar cells. Some areas show immature cells. Tumor cells show abundant granular cytoplasm with rounded eccentric nucleus. The connective tissue stroma appear delicately fibrovascular.Perineural invasion was noticed and diagnosed as Acinic cell carcinoma. [Fig 1 a-d].

On the basis of HPR report patient was advised for wide surgical excision followed by radiation therapy. But the patient refused to take the treatment .The patient is on monthly follow up.

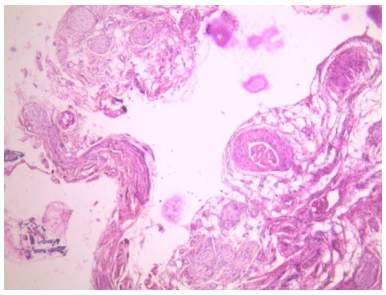
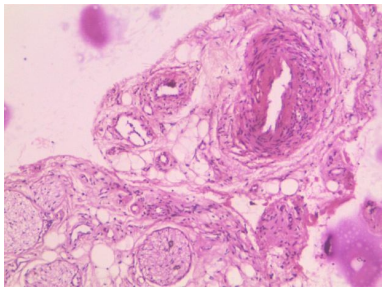


Fig: 1(a)



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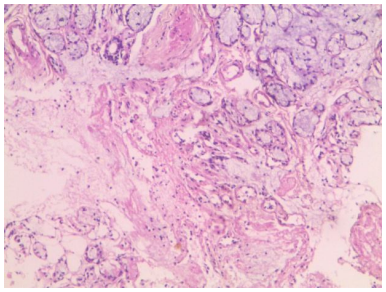

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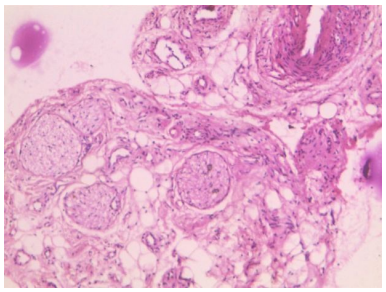

Fig: 1(d)

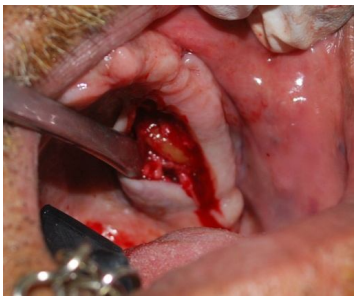

Fig: 2

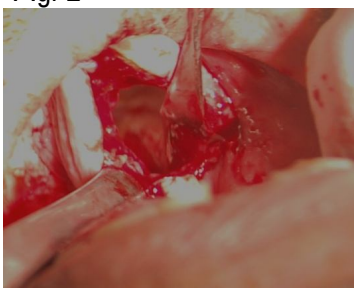

Fig: 3

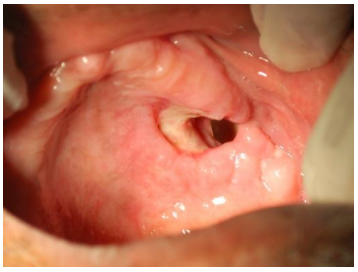

Fig: 4

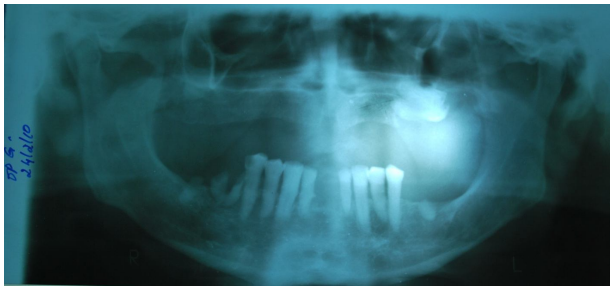

Fig: 5

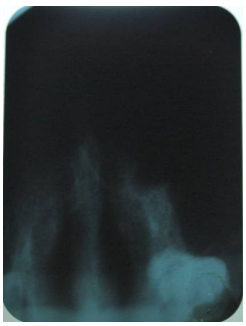

Fig: 6

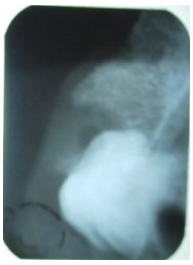

Fig: 7

Discussion :

Acinic cell carcinoma arising in the palate are very rare. In major salivary glands its occurrence is 2.9% and in intraoral minor salivary glands the occurrence diminishes to 0.5%[17]. Histological classification of tumor by the WHO 1991 considered acinic cell carcinoma as a carcinoma terminating the debate whether this lesion is benign or malignant[2].

The present case is an unusual presentation of acinic cell carcinoma in the form of a dentigerous cyst. The diagnosis of infected dentigerous cyst was made in this case , as there is a cyst with an impacted teeth along with pain was present. So the surgeon should be very much speculative of the diagnosis if a lesion occur in the unusual sites and if any specimen is taken out, it should be sent for HPR and the final treatment should be based on the histology report.

The occurrence of acinic cell carcinoma in extremes of age are very rare as in the present case. The clinical picture may give the false impression of a cyst associated with a teeth due to the slow growing

nature along with ectopic position of the lesion, especially when it is associated with an impacted teeth . Any how it is mandatory to send all the specimen for the HPR to rule out any pathology and to make necessary alteration in the treatment plan.

Histological findings are of immense valuein determining the prognosis of acinic cell carcinoma. Histologically four varieties of acinic cell carcinoma are present (a) solid (b) papillary cystic (c) follicular (d) microcystic[2.] . Usually a combination of these pattern occur with predominance of one group. According to the literature, the best prognosis among all salivary gland tumor is in acinic cell carcinoma [3]. Desmosomal stromal reaction , atypia, increased mitotic activity are all indicators of poor prognosis.

Histopathologically it has markable resemblance to the acinar cells in well differentiated tumors. Acinar cells have large amount of granular basophilic cytoplasm and around darkly stained eccentric nucleus. Lymphoid elements are seen only in parotid acinic cell carcinoma.

Four types of acinic cell carcinoma are

Solid – numerous well differentiated acinar cells arranged in a pattern that resemble normal parotid gland tissue.

Papillar cystic – large cystic areas that are lined by epithelium having papillary projections in to cystic spaceses.

Follicular – appear similar to that of thyroid tissue.

Microcystic – show multiple small cystic spaces having some mucinous or eosinophillic material

Reliability of histopathological and morphological features regarding the course of the disease, mortality is questionable. HPR report of low grade tumor does not perclude the good prognosis as there is a occasional aggressive behaviour shown by these low grade tumor. Conversely a high grade tumors are definitely aggressive with less survival rate[9]. The palate was the most common site for minor salivary gland neoplasm (57%)[17] and is the most common site for all salivary gland (16%) tumors.

The treatment of choice is the wide surgical excision . Tumors of minor salivary glands have less malignant potential and mortality but the increased recurrence and metastasis may be due to its inadequate treatment by enucleation[2]. Well encapsulated lesions which are removed in toto are less likely to recurr. The main aim of doing surgery is the complete excision of the lesion. In incomplete surgery radiation therapy with fast neutron beam should always be considered[8]. Chemotherapy has little role in this tumor except for pain relief. But the newer angiogenesis inhibitor drugs are promising. Metastasis to the cervical lymph nodes, liver, lungs, contralateral orbit, spine and to other tumours (neurofibroma) has been described in the literature [10,18,19]. Vidyadhara et al reported wide spread metastasis of acinic cell carcinoma simultaneously to lymph node, lungs and spinal cord in a single patient[10]**.** Prognosis depends on the local or distant invasion and the completeness of surgical excision.

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