PRIMARY CENTRAL SALIVARY ADENO-CARCINOMA OF MANDIBLE

Case Report

*Dr. Wadkar, M. A. M., D. S., **Dr. Gupta, A. K., M. S. (Gen. Surg.) M. Ch. (Plastic Surgery)
***Dr. Sharma, L. K., M. S. (Gen. Surg.) M. Ch. (Plastic Surgery).
****Dr Sharma, S. V., M.D. S.

Central salivary gland tumours of the jaw are extremely rare and have yet to achieve acceptance as a distinct clinical entity in the classification of jaw tumours. The aberrant salivary gland tissue, found in the jaw and at other places, is known to harbour all the benign and malignant lesions, found at normally located salivary gland tissue. In most of these cases, a correct clinical diagnosis is not possible, and often are lebelled as ameoloblastoma. This is a case report of a case of central salivary adeno-carcinoma of mandible.

Case Report :

A twenty years old lady attended oral surgery OPD of Dental College, Nagpur on 3.6.77, with the C/o of swelling and pain on the left side of the mandible, for 3 months. Prior to this her lower seventh and eighth molars had been extracted under an antibiotic cover without any relief.

Extra-orally, there was a diffuse swelling on the left side of the lower jaw, measuring 6×4 cms in size. Lymph nodes in the cervical region were not palpable. Intra-orally, there was expansion of both the tables of the manble. The mandibular swelling was extending from pre-molar to retro-molar region. The mucosa overlying was intact, except for a small granulating ulcer in the molar region. The swelling was hard in consistency. No egg shell crackling or crepitus could be elicited.

Routine examination of blood and urine did not reveal any abnormality. The X-ray of the mandible showed a radio-lucent multicystic lesion in the body of the mandible, extending from first molar to angle of the mouth. Tissue from the ulcer margin and the floor was sent for histopathology examination twice, but no confirmatory diagnosis could be reached. A clear, thick fluid was aspirated from the swelling, which showed plenty of red cells, but no malignant cell.

Special investigations like, serum alkaline phosphatase, acid phosphatase and serum calcium were carried out to exclude generalised bone pathology. A thorough work-up to exclude the probability of the secondary deposit from an occult primary was carried out.

With the provisional diagnosis of ameloblastoma, the patient was taken for surgery. Under general anaesthesia, hemimandibulactomy from the lateral incisor to the neck of of the condyle including the palpable and radiological limits of the tumour with a good mucosal calearance was carried out.

*Professor of Oral Surgery, Govt. Dental College & Hospital, Nagpur.
**Reader in Plastic Surgery, Tata Department of Plastic Surgery, Grant Medical College. Bombay.
***Professor of Plastic Surgery, Medical College & Hospital, Nagpur.
****Reader in Dentis try, Medical College, Ambajogai.

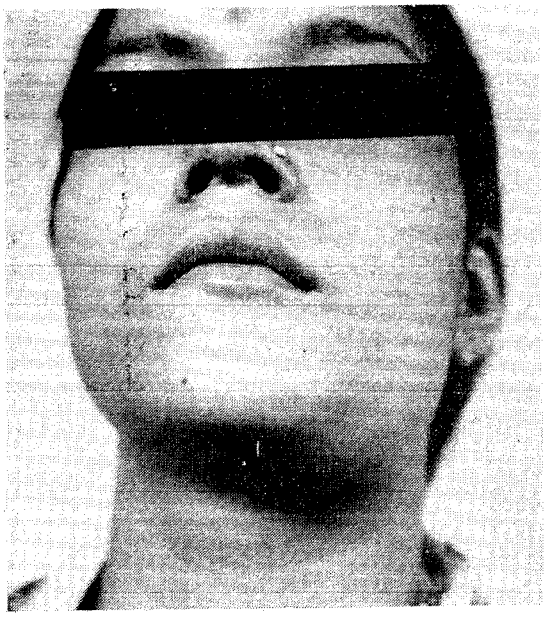


Fig. 1

Immediate post-operative period was uneventful. The patient was discharged on 10th post-operative day. After a recurrence free period of six months, she was taken for reconstruction of mandible, by a bone graft taken from the 7th rib.

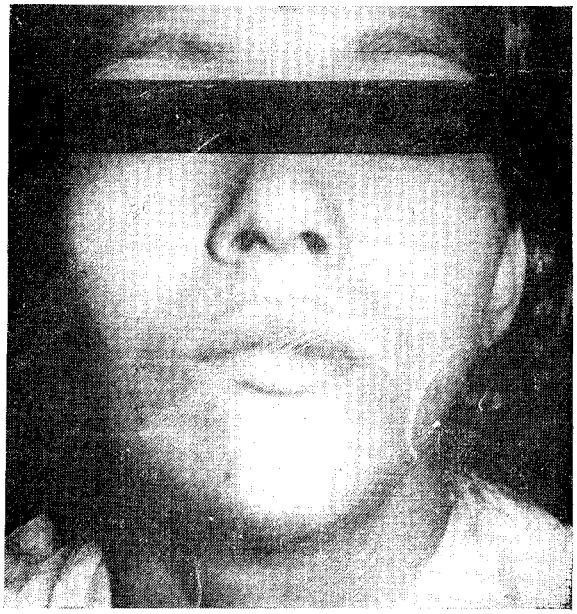
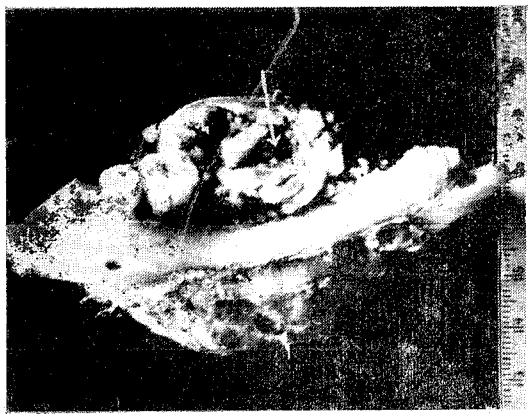


Fig. 2

Histopathology: Macroscopically the tumour was found to be multicytic with areas of recent haemmorrhage. The tumour was causing expansion of the mandible without any breach in the cortex.



Fig, 3

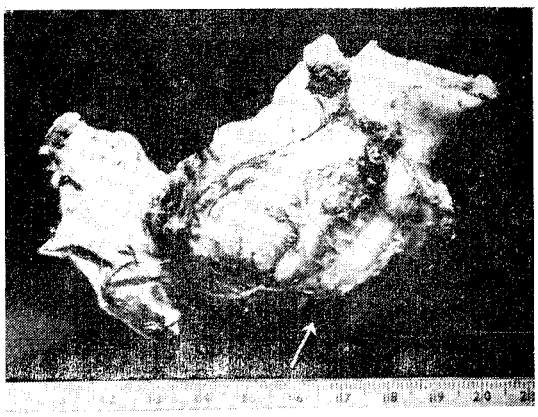


Fig. 4

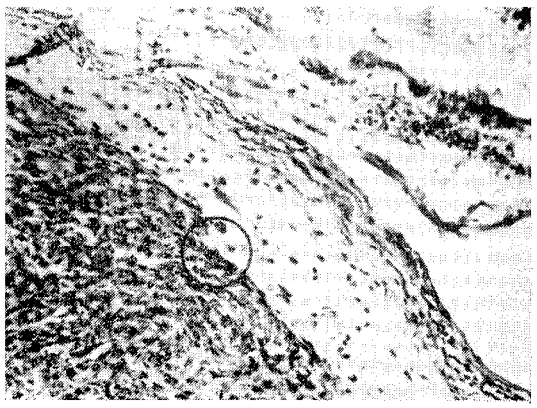


Fig. 5

Histologically, the picture was suggestive of adeno-carcinoma of ectopic salivary gland. Small areas showing mixed and mucoid changes were also seen

Discussion

There is not enough of literature available on central mandibular tumours. Most of the reported cases are isolated, sporadic case reports. The explanation for the presence of salivary gland tissue intra-osseously is not known. A number of theories have been put forward. A few of them are as follows :—

(1) It arises from the lining of odontogenic cysts. These cysts are lined by squamous cell epithelium. This epithelium may undergo mucous metaplasia, but when present, they are usually limited to superficial layers.

(2) Elements of salivary gland may cause indentation on lingual side of mandible and normal salivary gland tissue fills these cavities. They are anterior to angle of mandible and below the inferior dental canal.

(3) Developing mandible is a trough like structure, covered by oral mucosa. In the future retro-molar fossa, oral epithelium gives rise to retro-molar mucous glands. Some glandular tissue is included in the superior aspect of the mandible and is located above the inferior dental canal.

These tumours are slow growing lesions found most commonly in 4th, 5th and 6th decades. Swelling and pain are two common presenting features, but the later is not a constant one. Our patient a 20 years old woman, was too young for the common age group and also the rate of growth was too rapid. Both the above findings indicate aggressiveness of the tumour.

Due to rarity of the tumour, it is unwise to put the diagnosis of primary intraosseous tumour, unless the patient has been thoroughly worked out and investigated to exclude any occult primary malignant lesion with secondary deposit in the mandible. Most common systems known to harbour occult primary are respiratory tract, gastro-intestinal tract and genito-urinary tract. In addition following criteria are essential for putting up a diagnosis of primary intra-osseous tumour. They are :—

a. Non-ulcerated mucosa over the swelling.
b. Presence of normal salivary glands.
c. Intact cortical plates.
d. Definitive histologic evidence of the salivary tissue.

Occasionally, due to aggressiveness of the tumour, mucosa may ulcerated ane one of the cortical plate of the mandible may be infiltrated. Faulty and unwarranted extraction of tooth or trauma may also leave a non-healing ulcer. In our cases, the mucosa was ulcerated, which may be accounted for faulty extraction of tooth as well to aggressiveness of the tumour.

In such cases, most of the time preoperative diagnosis of ademantinoma or a cystic lesion of mandible is made. As in our patient, a provisional diagnosis of Ademantinoma or myxoma was made. Primary intra-osseous Adenocarcinoma is a histologic dignosis and was made following resection of the tumour.

Treatment :

Although, the rate of growth of the tumour can be slowed for years by radiotherapy radical resection remains the curative treatment of choice. Conservative approaches iike enucleation, marsupialization or curettage are

known to be associated with high local recurrence. Cervical ldmph node involvement and lung metastases are known, but rare.

In our patient after a recurrence free interval of 6 months, reconstruction of the mandible (bone graft) was undertaken. There were no evidence of local or distant metastasis. Rib graft is well accepted both functionally and asthetically. A long term follow up is necessary for evalution of behaviour of the tumour and 5 years survival.

Summary :

A case of primary central adenocarcinoma of mandible is reported. Rib graft was put to rehabilitate the patient after a recurrence free interval of 6 months. No adjuvant chemotherapy or radiotheraphy was started in our patient.

References :

1. Bhaskar, S. N. (1963) : Central muco-epidermoid tumour of mandible, Cancer, 16, 727.
2. Castiglano, S. G. & Rominger, C. J. (1954) : Metastatic malignancy of Jaw. Amer. J. Surg. 87, 596.
3. Dhavan, I. K., Bhargava, S., Nayak, N. C. & Gupta, R. K. (1970) : Central salivary gland tumours of Jaw, Cancer, 26, 211.
4. Freedman, S. I., Van De Valde, R. L., Kagan, R. A. & Perzik, S. L. (1972) : Primary malignant mixed tumour of the mandible. Cancer, 30, 167.
5. Silverglade, L. V., Alvares, O. F., & Olech, E. (1968) : Central muco-edidermoid
6. Spiro, R. H., Koss, L. G., Hajdu, S. I. & Strong, E. W. (1973) : Tumours of minor salivary glands, Cancer, 31, 117.
7. Stoil, H. C., Marchetta, F. C. & Shobinger, R. (1957) : Malignant epithelial tumour of the mandible & Maxilla. Arch. Path. 64, 229.
8. Toth, B. B., Byrne, R. P. & Hinds, E. C. (1975) : Central adenocarcinoma of mandible, J. Oral Surg. 39, 436.