RECURRENT AMELOBLASTOMA IN TEMPORAL REGION

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INTRODUCTION

Ameloblastoma is a tumour of odontogenic epithelial origin and is composed of ameloblast like cells[1]. It is a benign locally invasive tumour with tendency to infiltrate beyond observed radiographic and clinical margins[2]. The clinical behavior may be regarded as lying somewhere between benign and malignant, and the high recurrence rate is a problem for clinicians [3].

CASE REPORT

A 50 years old lady presented with swelling right side of face and limited mouth opening for last three months which was gradually worsening. Her personal, family and socioeconomic history was not contributory but she had a history of hemimandibulectomy for Ameloblastoma right side of mandible 10 years back.

On clinical examination she had firm to hard painless, nontender swelling right side of face in temporal region measuring 4cm x 5cm, overlying skin was mobile, normal in colour and texture and she had a limited mouth opening with deviation towards right side (Fig.1). Intraorally she had missing mandible on right side, firm to hard, painless, nontender swelling right buccal vestibule along with normal mucous membrane. Routine investigations followed by fine needle aspiration and CT scan was performed which suggested benign and localized growth. Patient was discussed in head and neck oncology conference at CMH Rawalpindi and a treatment plan of tumour excision by combined intraoral and extraoral approaches followed by long term follow up was made. Under general anesthesia Bramely Alkayat incision was made on right side and tumour mass was excised (Fig.2&3) similarly intraorally incision was made over swelling in right buccal vestibule and tumour mass was excised. Hemostasis achieved and wound was then closed in layers.

Histopathological examination of the mass revealed recurrent Ameloblastoma right temporal region with odontogenic epithelium demonstrating columnar differentiation with reverse polarization. The central zone showed stellate reticulum and foci of cystic degeneration.

Postoperatively she recovered uneventfully. Patient has been followed up regularly and she remains free of disease clinically and radiographically (Fig.4).

DISCUSSION

An Ameloblastoma is a benign but locally invasive tumour of odontogenic epithelial origin with strong tendency to recur. It was first recognized by Cuzak in 1927 but Churchill in 1934 was the first one to use the term Ameloblastoma for it[4]. It may arise from the rest cells of the enamel organ, developing enamel organ, the epithelial lining of an odontogenic cyst, or from the basal cells of the oral mucosa [3]. Ameloblastoma represents 1% of all tumours of maxilla and mandible and approximately 10% of all odontogenic tumours[5]. The average age at diagnosis of patients with Ameloblastoma is about 36 years. Men and women are equally affected. The mandible to maxilla ratio is 5:1, with the molar region of the mandible being most frequently affected[6]. Ameloblastoma can be classified into solid or multicystic, unicystic and peripheral types [7].

The surgical management of Ameloblastoma has been a controversial subject. They can be divided into conservative and radical approaches. The conservative approaches include enucleation and curettage while radical approaches include resection which may be either marginal or radical resection[8].

It has a strong tendency to recur after inadequate treatment. Ameloblastoma has been reported to recur 10 to 30 years after the initial management, however rarely in temporal

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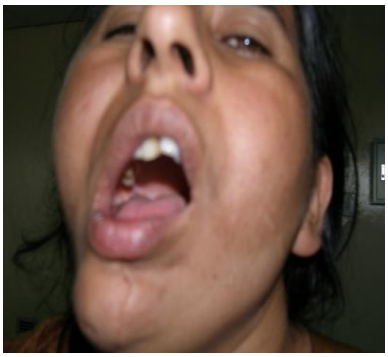

Fig.1

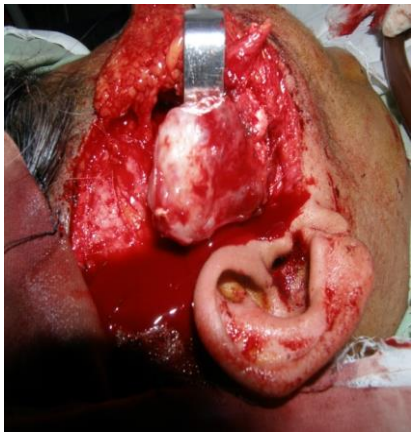

Fig.2

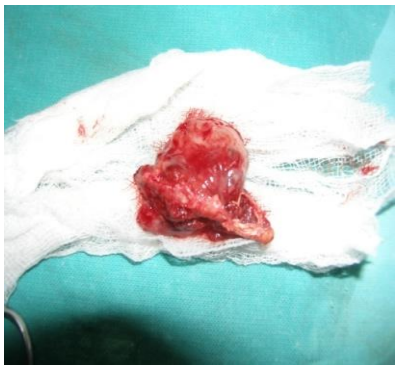

Fig.3

Fig.4

region[9]. The correlation between recurrence and the treatment method or histopathological type is significant. The follicular, granular cell and acanthomatous types have a relatively high likelihood of recurrence, and require more radical treatment and close observation. The desmoplastic, peripheral, plexiform and unicystic types show a relatively low potential for recurrence[3].

Recurrence is more common when therapy consists of enucleation and curettage, as high as 90% in mandible and 100% in maxilla while 5% to 15% in case of radical resections. Recurrence may be due to inaduequate excision of involved bone, overlying soft tissues and spreading of residual bone fragments containing tumour tissue.

The recurrence of Ameloblastoma in temporal region is difficult to explain. Although discontinuous from mandible, it is unlikely to be a metastatic lesion because there is no associated primary lesion. It cannot be a second primary of peripheral type of Ameloblastoma which arises only in gingiva or alveolar mucosa. Although difficult to prove but recurrence in temporal region might be due to seeding into infratemporal fossa during previous resection[9]. Furthermore, the presence of Ameloblastoma in temporal region can be explained by detachment and retraction of masticatory muscles so tumour cells remaining in muscle attachments causing recurrence or the tumour might have extended from its primary location through the bone medially into soft tissues and subsequently extended superior and deep to temporalis muscles[10].

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