RECURRENCE OF MANDIBULAR AMELOBLASTOMA AFTER 20 YEARS: A CASE REPORT

Tariq Ahmad[1], Sanam Pirzada[1], Fahad Qiam[1]

[1] Department of Oral and Maxillofacial Surgery, Khyber College of Dentistry, Peshawar

ABSTRACT

Ameloblastoma of the mandible is a common benign and locally invasive tumor of odontogenic epithelial origin. Ameloblastoma is characterized by its locally aggressive and lytic nature of expansion. It mostly involves the posterior mandible in elderly patients. The treatment is always surgical and is based on the histopathological nature and extent of the lesion. The conservative surgical approach is associated with high recurrence rate. The recurrence have been reported in mostly with in ten years after the surgical management and about 70% cases of recurrence are reported with in first five years of surgery.This case of a 65 years old lady presented with progressive mandibular swelling. On history taking she revealed previous surgery of jaw almost 20 years back. Her previous record of documents showed histopathology of ameloblastoma. When incisional biopsy was done the case was reported again of ameloblastoma. The case is reported here as recurrent case of ameloblastoma after 20 years of its management, which may be considered the longest time of recurrence in our context.

Keywords: *Ameloblastoma, Odontogenic tumors, Mandible, Recurrence*

INTRODUCTION

Ameloblastoma is a benign tumor of odontontogenic epithelial origin. It is slowly progressive but locally invasive pathology of the jaws. This tumor is having highest recurrence rate among benign tumor of odontogenic origin.[1, 2, 3] This pathology was reported by Folkson in 1879 for the first time. This pathological entity was named as 'Ameloblastoma' by Churchill in 1933.[4] There are some other terms in old literature for ameloblastoma such as cystosarcoma, adamantine epithelioma, and adamantinoma.[5]

It is believed that the ameloblastoma originate from the remnants of odontogenic epithelium, oral mucosa and lining of odontogenic cysts.[2,3] About 80% of ameloblastoma are reported in mandible and posterior mandible is the most favorable site.[6,7] The elderly patients are more commonly affected however cases have been reported in age range of 20years to 50years with no gender predilection. It has a strong tendency of recurrence in patients who are treated by conservative surgical excision.[8]

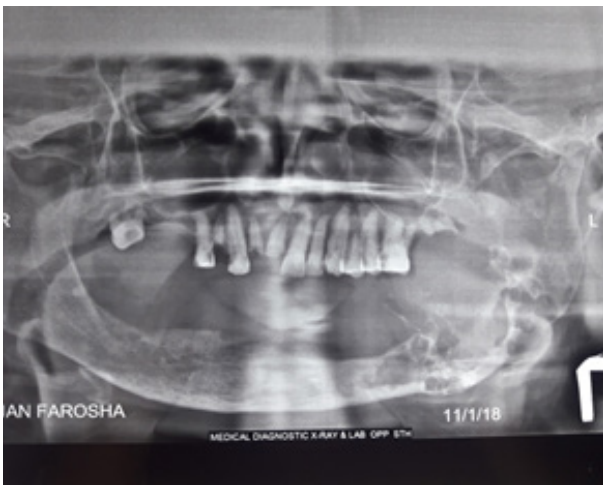
The purpose of this case report is to emphasize the importance of aggressive surgical treatment and long term follow up to look for recurrence in cases of mandibular ameloblastoma.

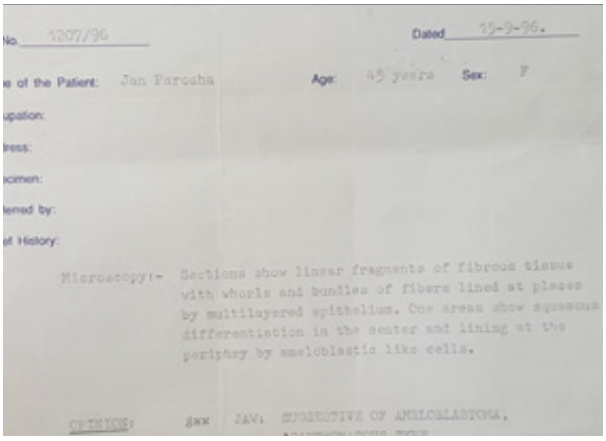
Correspondence:
Dr. Tariq Ahmad,
Assistan Professor, Department of Oral and Maxillofacial Surgery, Khyber College of Dentistry, Peshawar
Email: drtariqahmad@gmail.com
Contact: :+923005935010

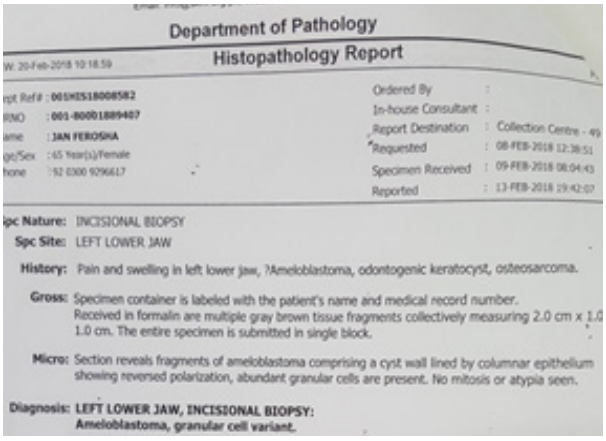
CASE REPORT

A 65 year old lady reported to the Department of Oral and Maxillofacial Surgery, Khyber College of Dentistry with a presenting complaint of pain and swelling in left lower jaw area. According to the past history of patient, she developed a small swelling in left lower jaw when she was young. It gradually increased in size and she was operated for that in 1996 at Khyber College of dentistry Peshawar. Now the patient had developed similar type of slow enlarging swelling in jaw due to which she was having difficulty in eating and mouth opening. There was associated occasional pain, pus discharge and fever. On clinical examination, there was a hard tender mass, measuring approximately 6×4cm involving the left angle and body region of mandible. A single lymph node was palpable on left submandibular region. Systemic examination was unremarkable.

An Orthopantomogram (OPG) was taken, which







showed an edentulous mandible with a large multilocular lesion in left side, extending from mid ramus to the body region. The loculi were of varying sizes, interspersed with areas of normal bone. There was resorption of the superior alveolar border and extension into the soft tissue. The inferior border showed some areas of perforation and bowing. The inferior alveolar canal could not be appreciated radiographically. On CT scan there were areas of perforation on buccal and lingual cortices.

SURGICAL PROCEDURE

The patient was prepared for segmental resection under general anesthesia. The Nasotracheal intubation was done. Local anesthesia containing adrenaline (1:100,000) was given along the lower border of the mandible for hemostasis. An extended risdon incision was given. Tissue dissection was done layer by layer to protect the marginal mandibular branch of the facial nerve. The facial artery was identified and ligated. The pterygomasseteric sling was identified and incised at its most inferior aspect and access was gained to the inferior border of the mandible. The mass was exposed buccally and lingually. The mental foramen and nerve were identified and protected. The bone was scored to mark the cuts for the osteotomy and the incision was extended intra-orally, following which segmental resection was done.

DISCUSSION

Ameloblastoma is a benign odontogenic tumor; initially it was called‘‘adamantinoma’ by Malassez, later on Churchill renamed it as ameloblastoma.[9]

Due to its locally aggressive growth pattern, ameloblastoma has a high recurrence rate. About 50-72% of the cases reoccur within the first 5 years after surgey.[2] But, here in our rare case report we noticed recurrence after 20 years which is very uncommonly reported in literature.[10] There are several factors which are associated with high rate of recurrence. The histopathological variant is the important determinant of recurrence rate. The solid or multicystic variant is having more tendencies for recurrence because of its local infiltration. The an-

atomic location of the tumor also contributes to the recurrence rate. Because of the thick cortical bone of mandible, the spreading of tumor is prevented for long, however the tumor extends beyond the radiological margin in the central cancellous bone. The most important factor leading to high recurrence rate is the limited and inadequate surgery.[11] Most of the times due to limited extent or small size of tumor, many operators prefer conservative surgeries like enucleation, marsupilization. To maintain lower border intact and preserve continuity of mandible, some surgeons prefer marginal resection. But all these conservative approaches could lead to early recurrence. Thus, radical surgical excision is the most appropriate treatment that should be done for recurrent ameloblastoma as supported by literature. In cases of conservatively managed cases, regular follow up for long term is necessary to identify early recurrence.[2,12] In case of recurrence, aggressive tumor excision or resection and mandibular reconstruction with bone graft either vascularized or nonvascularized is the preferred choice of management by most surgeons.[13]

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