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Research Article

INTRA ORAL APPROACH FOR THE TREATMENT OF AGGRESSIVE FIBROMATOSIS OF INFRA TEMPORAL REGION: A RARE APPEARANCE AND NOVEL APPROACH

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ABSTRACT

Aggressive fibromatosis a rare locally aggressive, non metastatic tumor of desmoid origin occurring in the head and neck region. An extensive tumor in the infra temporal fossa of one year duration in a 60 yr old male patient is presented here. Surgical resection of the tumor proved to be a curative treatment. Various modalities of extra oral approach to lesions of infratemporal region are mentioned in literature. Here we present the first case of removal of rare tumor through a novel intraoral approach. Recurrence nature of the tumor shows periodical review of the patient is a must.

Key Words:

Aggressive fibromatosis, desmoids,
infratemporal region, intra oral approach

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INTRODUCTION

Aggressive fibromatosis is a neoplasm of desmoid origin. The term desmoid is coined by Muller in 1838¹, which means tendon like. It is a rare neoplasm of musculo aponeurotic structures of the body which occurs mostly in the abdominal structures.³ The representation in oral and maxillofacial region is considerably rare. It is a locally aggressive benign lesion with high recurrence rate. Depending upon the nature of the lesion which is usually benign, surgical excision forms the treatment of choice.⁵ extra oral approach to infratemporal region always the risk of injury to the facial nerve. Intra oral approach has been planned due to surgeons familiarity with the region. The malignant transformation of the lesion is very rare but owing to its recurrence in nature adjuvant radiotherapy is also considered effective in literature.⁶

Case Report

A 60 yr old male patient presented to the department of Oral and Maxillofacial surgery of Mamata dental college and

Hospital, with the chief complaint of swelling in the left oral region causing difficulty in swallowing since one year.

The patient was apparently well before. The swelling developed over a period of one year to the present size. (Fig 1)



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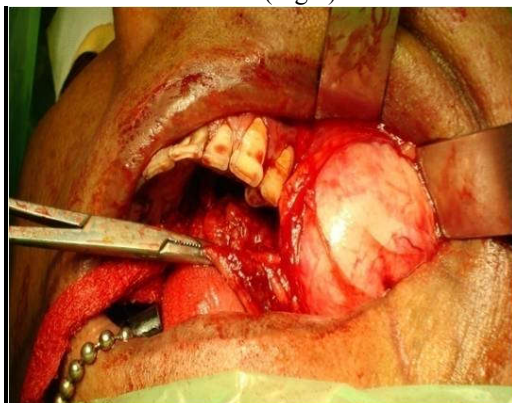
On examination his general physical status was normal and there are no similar tumors on other areas of the body. On palpation swelling was lobulated, firm in consistency extending posteriorly beyond the posterior wall of buccal region.(Fig 2)



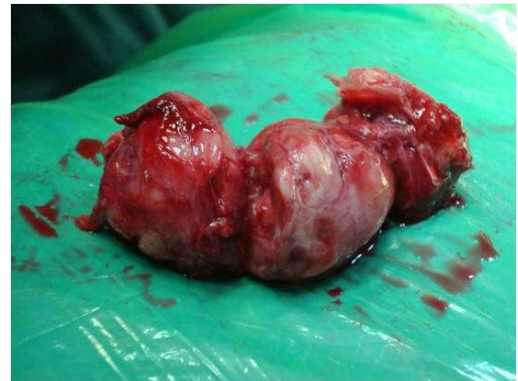
There is no discharge through the swelling. The mass is neither pulsatile nor inflammatory. Radiographic finding showed a radio opaque mass in the zygomatic region extending into the infratemporal space till the pterygoids. (Fig 3)



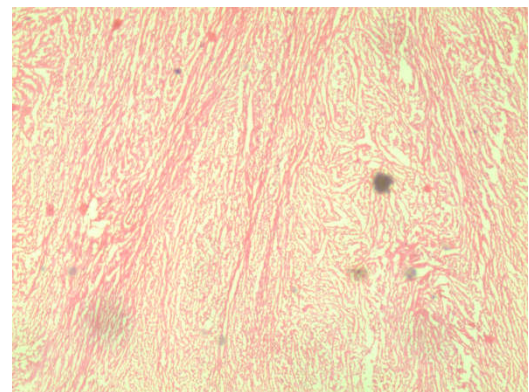
A complete informed consent was taken from the patient. The patient was a political leader in the local village. The complications of extra oral approach was explained to the patient, he was very much reluctant for extra oral approach as this would change his public appearance. Hence a careful intra oral approach was planned. Aspiration and incisional biopsy was done and malignancy excluded. Surgical excision of the tumor was performed. Surgical procedure included trans oral approach the superior gingivolabial sulcus provided the access to the lower part of infra temporal fossa. Incision is given in this region and slow blunt dissection is carried inward and superior direction. The fatty tissue is attained which is slowly teased and moved aside. (Fig 4)



Then the dissection continued till the mass is approached. The mass is lobulated. The lesion is slowly dissected from the surrounding structures. The lesion slowly extruded through the incision. The lobulated lesion is grasped and removed with forceps.(Fig 5)



The entire mass is removed .the fatty tissue is secured back and then the incision is closed with 3-0 vicryl suture and silk suture. The advantage of blunt dissection in this region prevented injury to many vital structures. resected specimen was then sent for histopathological examination. (Fig 6)



The final diagnosis revealed aggressive fibromatosis. Histopathology showed spindles of fibroblasts in plexiform arrangement with fascicular and bundle arrangement.

DISCUSSION

Aggressive fibromatosis is rare tumor of head and neck region and more rarely observed in the infratemporal space. It is a locally aggressive soft tissue tumor with no metastasis.¹ Fibromatosis occur in the extra Oral sites are more common usually in the abdomen.² ENZINGER & WEISS showed the incidence of these tumours even in childhood.³ The tumors are observed in head and neck region in 37 % cases, shoulders and arms with 32%, trunk 18%, thighs 16%. In head and neck region these tumors are present in soft tissues adjacent to mandible, 19% in parotid, 7% in tongue, 7% in maxillary gingival and palate and 4% in lip.¹¹ This case presents second case occurring in infratemporal space in literature.

The etiology of the tumor is controversial. The various reported etiology included genetic ³, endocrine⁴, trauma⁵, radiation⁶ and is also associated with Gardners syndrome.⁷ Macroscopically the tumors may attain larger size. The infratemporal region include space of wide margin. The tumor is not confined as the borders are ill defined due to its tendency to infiltrate the

surrounding tissues.⁸ In our case the radiographs showed poorly demarcated irregular resorption of adjacent cortex. The extension of the lesion to the infratemporal space with no signs of anesthesia or paresthesia. No lymphnode involvement is observed. The biopsy shows fibrous tissue which is highly cellular, cells are elongated spindle cells with abundant collagen arranged in broad elongated fascicles.¹⁹ No evidence of malignancy found.

The treatment modality is the wide surgical excision of lesion and any involved bone with 1 to 1.5 cm healthy margin. In head and neck region the preservation of vital structures and their function impedes the complete excision of the tumor.^{9,10} but as this tumor has encroached into the space the surgical excision of the tumor was done meticulously. An intraoral approach to the lesion was planned.¹⁷ Another good approach is transzygomatic approach which is mentioned in literature for tumors involving infratemporal space.

Multi modality treatment is employed to control the residual disease are also reported in literature.¹¹ Surgery combined with chemotherapy¹² or radiotherapy¹³ are reported with less clarity. NSAIDS are also advocated which act by inhibiting prostaglandin synthesis by impairing the proliferative capacity of tumor cells and at the same time stimulate immunogenic response.¹⁴ Anti estrogen therapy which is also reported in the literature on the ground that the speed of the growth of fibromatosis is regulated by female sex hormones.¹⁵

The recurrence rate of the tumor were reported as 57% by ENZINGER (1967) 70% by MASSON (1966).¹¹ Wide surgical excision is therefore is the treatment of choice.^{16,18.}

The follow up was done for 5 years (Fig 7)



There are no signs of recurrence.(Fig 8)



CONCLUSION

Aggressive fibromatosis is the tumor of desmoid origin. The tumor is slow growing, locally aggressive with no evidence of

metastasis. The infratemporal space results in wide area of growth. Surgical excision of the tumor with safe margins forms the major modality of treatment. As the recurrence rate high, regular monitoring of the lesion is of utmost importance.

Ethical Approval: Approved by ethical committee of mamata dental college and hospital.

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