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CASE REPORT

MISSING TEETH CAUSING LIMITED MOUTH OPENING: A CASE REPORT

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ABSTRACT

Purpose of this study was to analyze clinical and radiographic features of odontogenic infection with underlying pathology. Systematic approach leads to narrow the differential diagnosis on the basis of exclusion. This results in correct diagnosis, proper treatment and avoiding overtreatment unnecessarily. This case report highlighted an unusual case of odontogenic infection involving adjacent fascial spaces with underlying pathology which was mimicking cyst, tumor and odontome. Systematic approach helped us to achieve an accurate diagnosis, treatment and avoiding overtreatment.

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INTRODUCTION

The important step in successful therapeutic management of patient with a disease in oral and maxillofacial region depends upon creating a differential diagnosis (Ikeshima and Tamura, 2002). Clinical differential diagnosis is the cognitive process of applying logic and knowledge in a series of step by step decisions to create a list of possible diagnosis. Differential diagnosis should be approached on the basis of exclusion to narrow the diagnosis. A thorough inspection of the oral cavity should be a part of clinical examination (Vargas and Arevalo, 2009). Oral tissue biopsy may be necessary for lesions that can not be diagnosed on the basis of the history and clinical findings alone and also some additional information can be gained to guide any indicated surgical procedure (Daley *et al.,* 1994). Oral and maxillofacial Surgery deals with various pathologies in facial region. It poses dilemma in diagnosis, if it arises altogether. Systematic approach is needed to diagnose it correctly and for proper surgical management. We are presenting an interesting case which was having possibilities of multiple pathologies in one. Systematic approach helped us to diagnose it correctly and helped in proper surgical management.

CASE REPORT

A 16 year old female came to our department with chief complaint of pain, swelling in right side of face since 5 days and inability to open the mouth since 2 days (Fig.1). Patient was apparently alright 5 days back when she felt pain in right side of lower jaw. Pain gradually increased in severity and swelling was noticed since 5 days. Initially swelling was small, which gradually increased and attained present size. (Dumbbell shaped 6 X 3 cm.) Mouth opening was restricted since 2 days. On clinical examination, on right side, Swelling in cheek and temporal region. Anteroposteriorly, extending from commisure of lip to posterior border of ramus of mandible. Superioinferiorly, extending from temporal region to inferior border of body of mandible. Swelling was having typical dumbbell shape appearance due to separation by zygomatic arch. Swelling was hard, tender and nonfluctuant. Mouth opening was 8 mm. On the basis of clinical findings, provisional diagnosis of right buccal, submassetric and superficial temporal space infection was made. Radiological investigations revealed radiolucent lesion with radiopaque mass in right posterior region of the mandible. First mandibular molar of right side was impacted with resorption of roots. This radiographic picture was mimicking various pathological lesions. Based on clinical and radiologic examination, a differential diagnosis of dentigerous cyst, calcifying epithelial odontogenic tumor (CEOT), keratinising Cystic Odontogenic Tumor (KCOT), unicystic ameloblastoma, complex odontome and impacted mandibular first molar of right side were considered.

Treatment

In first phase, incision and drainage of abscess after empirical antibiotic therapy was done under conscious sedation (Fig.2 and 3).

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Fig. 1. Frontal view of the patient showing trismus and dumbbell shaped swelling s/o buccal and superficial space involvement.

Fig. 2 . Incision and drainage

Fig. 3. Corrugated rubber drain secured for drainage of abscess

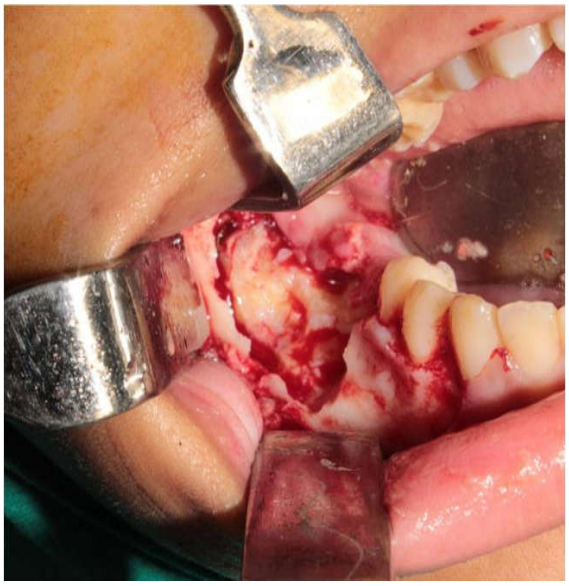

Fig. 4. Surgical exposure of the lesion

Fig. 5. Surgical defect after removal of the lesion

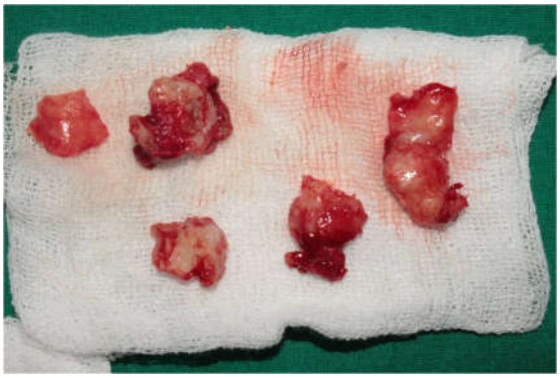

Fig. 6. Excised specimen

In second phase, calcified lesion along with soft tissue lining and impacted molar was removed under general anesthesia. (Fig.4, 5 and 6) Histopathological report was complex odontome. Final diagnosis was made as buccal, superficial temporal and submassetric space infection due to Complex odontome with Impacted mandibular first molar of right side with resorption of roots.

DISCUSSION

Odontogenic infections are known to involve various adjacent fascial spaces (Coller and Valk, 1939). Infection from mandibular molars may spread to primary spaces like buccal space and submandibular space and further it can spread to secondary spaces like superficial temporal space and pterygomandibular space etc (Ohshima *et al.,* 2004). Clinical diagnosis and treatment of these lesions are not always simple, due to anatomical complexity and sometimes involvement of multiple pathologies (Bratton *et al.,* 2002). The patient reported with swelling in right side of face with trismus. This was suggestive of buccal, superficial temporal and masticator space involvement (Fernandes *et al.,* 2003). Intraorally, mandibular molars of right side were missing. Radiographically, though all types of pathologies were suspected as mentioned in the differential diagnosis, it was looking like odontome rather than any other pathological entity. As it was a case of infected odontome with impacted mandibular molar, we had systematic approach to treat the case. In first phase, incision and drainage of abscess was done and in second phase, lesion was surgically removed, avoiding the overtreatment unnecessarily. There were no mandibular molars present in patient's mouth on right side. Parents have not bothered to show it to a dentist. This was negligence from parent's side. We also emphasise the need of routine periodic dental check up. This would have been detected the lesion in early stage and prevented the unnecessary patient's morbidity.

Conclusion

Odontogenic infection with underlying pathology is difficult to differentiate from one another (Troeltzsch *et al.,* 2015). Most of the lesions are benign, but some are locally aggressive with high recurrence rate (Kumar, 2015). Clinical examination, extent and location of the lesion and its radiographic features help the surgeon to achieve accurate diagnosis and proper treatment (Deboni *et al.,* 2012).

Conflicts of interest: None

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