OPEN ACCESS

Saudi Journal of Oral and Dental Research

Abbreviated Key Title: Saudi J Oral Dent Res
ISSN 2518-1300 (Print) | ISSN 2518-1297 (Online)
Scholars Middle East Publishers, Dubai, United Arab Emirates
Journal homepage: https://saudijournals.com

Case Report | **Oral and maxillofacial surgery**

Odontoma, an Accidental Finding during Curettage: A Case Report

Dr. Shivam Agarwal[1], Dr. Gauri Bargoti[2*], Dr. Birsubhra Roy[3], Dr. Kajal Awana[4]

[1]BDS, MDS, Senior Lecturer (Oral and maxillofacial surgery), India
[2]BDS, PG 2nd year (Oral and maxillofacial surgery), India
[3]BDS, MDS, Senior Lecturer (Oral and maxillofacial surgery), India
[4]BDS, PG 1st year (Oral and maxillofacial surgery), India

DOI: 10.36348/sjodr.2022.v07i06.001 | **Received:** 19.04.2022 | **Accepted:** 30.05.2022 | **Published:** 02.06.2022

***Corresponding author:** Gauri Bargoti
BDS, PG 2nd year (Oral and maxillofacial surgery), India

Abstract

Odontomas are common occurrences in the oral cavity and can be classified as complex or compound. Compound odontomas are rare and present in the extra-osseous soft tissues. In this case, the odontoma led to the impaction of permanent teeth, due to which removal of the lesion was advised.

Keywords: Odontoma, Compound, Mesenchymal, Benign.

INTRODUCTION

The most common and asymptomatic type of odontogenic tumours is odontoma [1]. They are basically composed of enamel and dentin with trace amount of cement and pulp [2]. According to World Health Organisation (WHO) odontomas are of two types [3]: *Complex Odontomas*, a malformation in which all dental tissues are present, but arranged in a more or less disorderly pattern; and *Compound Odontomas*, a malformation in which all of the dental tissues are represented in a pattern that is more orderly than that of the complex type [4]. The etiological factors although unknown, but the genetic factors, family history, and environmental causes such as trauma and infection have been believed to cause odontoma [5-8].

This is a case report of 65 years old female patient who reported to our department.

CASE REPORT

The 65 years old female patient reported to the department of OMFS with the complaint of pain and decayed tooth in lower back left tooth region for 3.5 months. The patient was a known diabetic but with medications the diabetes was well in control. The patient also gave the history of an elevated mass associated with the left back tooth region, earlier there was a history of pus discharge also that subsided after taking antibiotics that she took around a month back.

According to the history of the patient and the associated symptoms the patient was suspected to have some periapical pathology and was advised to undergo the IOPA for the same. It was observed on the radiograph that the second premolar of the third quadrant (35) was grossly decayed and there was the evidence of a well-defined radio-opacity surrounding the apex of the root. The radio-opacity was oval in shape clearly outlining the apex of the root. The radio-opacity was also outlined by a well-defined oval shaped radiolucency (Figure 1).

Figure 1: IOPA of the offending tooth

After the radiographic evaluation, the treatment was proceeded. The patient was draped and scrubbed with the betadine solution and followed that the tooth was infiltrated with 1:100,000 lignocaine with adrenaline (IAND, lingual and mental nerve blocks). After giving the local anaesthesia the patient was checked for objective and subjective signs and only after the emergence of the signs the treatment was proceeded.

To start with the treatment, the tooth was extracted first with as much less trauma as possible with the help of elevator and the lower premolar forceps. After the extraction of the tooth, the flap was carefully raised: the vertically releasing incisions were given on the mesial and distal aspect of the extracted socket (Figure 2). After the incisions were given, the flap was completed reflected and the underlying bone was carefully exposed.

Figure 2: The exposed bone

With the help of micromotor under copious irrigation with normal saline, a bony window was created in the buccal aspect of the tooth and then with the periapical pathologies were carefully removed. The pathologies were two in number, one was irregularly shaped having soft consistency while the other pathology was well-defined having oval shape, hard consistency and looked to be calcified (Figure 3).

Figure 3: Two pathologies along with the tooth

At last, the socket was sutured back with the help of 3-0 silk suture in simple interrupted manner (Figure 4) and the samples were preserved and sent for the histopathological examination (Figure 5).

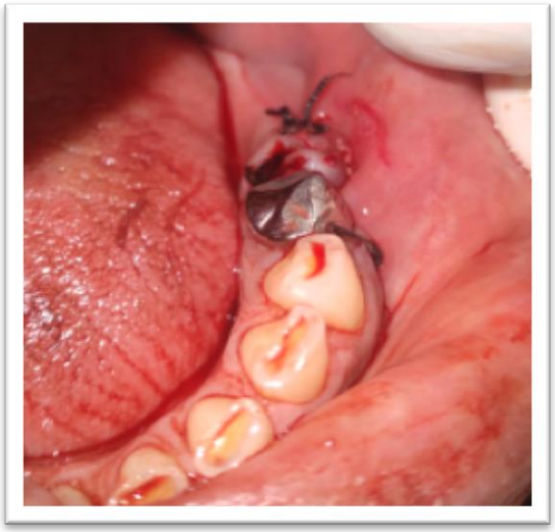

Figure 4: Sutured socket

42/22
10/03/2022 02:54pm
Received hard tissue (A) and soft tissue (B) specimens, soft tissue measuring 1.1*0.6*0.4 cm in its greatest dimension, creamish brown and firm in consistency. (A) Submitted ground section of tooth shows hard tissue resembling cementum. The calcified tissue shows irregular deposition of cementum like material associated with cementocytes suggestive of cellular cementum. Presence of cells in cementum which are enclosed in a lacunae and canaliculi are radiating from its body suggestive of cementocytes. Focal areas also show acellular cementum. Submitted decalcified H and E stained section of tooth shows structures resembling dentin in dentinal tubules with uniform distribution in cross-sectional view, comprised of round in shape along with empty lumen. Also, around the dentinal tubule, peritubular dentin is seen and between the dentinal tubules, intertubular dentin is evident. (B) Submitted H & E stained section shows non keratinized lining comprised of flattened cells with 2-3 cell layer thickness with focal areas showing hyperplasia, overlying a fibrocellular stroma. Stroma is composed of thick and thin collagen interspersed with spindle shaped fibroblasts. Blood vessels of varying caliber lined by endothelial cells and engorged with RBCs are seen. Chronic inflammatory cell infiltrate is mild and diffuse in nature and comprised of lymphocytes, mast cells and plasma cells.
A- Compound Odontoma; B- Inflamed Dental Follicle

Figure 5: Biopsy Report

DISCUSSION

Odontomas are relatively common odontogenic lesions, generally asymptomatic, and are rarely diagnosed before the second decade of life. They frequently lead to impaction or delayed eruption of permanent teeth [1, 9].

According to reports, the incidence of odontomas is really high in the maxilla i.e, 50.9-66.7%, the most common location being the anterior region of maxilla. According to reports of Kulkarni *et al*., and da Costa *et al*., odontomas rarely involved the primary dentition (1.3-12.8%). Pain and swelling are the most common symptoms when odontomas erupt, followed by malocclusion [10].

Though there is no exact aetiology of odontoma formation, a number of factors including prior trauma and infection seem to be involved [1].

Most odontomas are found in the second decade of life on routine radiographic examination and they could cause impaction of the adjacent permanent teeth. Early detection and treatment of odontomas could increase the possibility of preservation of the impacted teeth through various treatments. Therefore, periodic panoramic examination in the first and second decades of life would be recommended for the early detection and better prognosis of odontomas.

The early diagnosis of odontomas allows the adoption of less complicated and expensive treatment, and ensures better prognosis [10].

Whenever possible, surgical management is standard treatment that consists of removal of the lesion and enveloping soft tissue with curettage. This is to prevent the possibility of cystic degeneration. Dentigerous cysts, odontogenic keratocysts and calcifying odontogenic cysts have been associated with odontomas. Once the odontoma is removed surgically along with any lining epithelium, there is usually no recurrence [11].

REFERENCES

1. de Oliveira, B. H., Campos, V., & Marçal, S. (2001). Compound odontoma-diagnosis and treatment: three case reports. *Pediatric dentistry*, *23*(2), 151-157.
2. Neville, B. W., Damm, D. D., Allen, C. M., & Bouquot, J. E. (1995). Oral and Maxillofacial Pathology. Philadelphia: Saunders, pp 531-533.
3. Philipsen, H. P., Reichart, P. A., & Pr, F. (1997). Mixed odontogenic tumours and odontomas. Considerations on interrelationship. Review of the literature and presentation of 134 new cases of odontomas. *Oral oncology*, *33*(2), 86-99.
4. Kramer, I. R. H., Pindborg, J. J., & Shear, M. (1992). Histological classification of odontogenic tumours. In *Histological typing of odontogenic tumours* (pp. 7-9). Springer, Berlin, Heidelberg.
5. Owens, B. M., Schuman, N. J., Mincer, H. H., Turner, J. E., & Oliver, F. M. (1997). Dental odontomas: a retrospective study of 104 cases. *The Journal of clinical pediatric dentistry*, *21*(3), 261-264.
6. Kodali, R. M., Ramanjaneya Raju, P., & Vora, S. (2010). An unusual complex odontoma. *Journal of maxillofacial and oral surgery*, *9*(3), 314-317.
7. Baldawa, R. S., Khante, K. C., Kalburge, J. V., & Kasat, V. O. (2011). Orthodontic management of an impacted maxillary incisor due to odontoma. *Contemporary clinical dentistry*, *2*(1), 37-40.
8. Wanjari, S. P., Tekade, S. A., Parwani, R. N., & Managutti, S. A. (2011). Dentigerous cyst associated with multiple complex composite odontomas. *Contemporary Clinical Dentistry*, *2*(3), 215-217.
9. Cawson, R. A., Binnie, W. H., & Eveson, J. W. (1993). Color Atlas of Oral Disease. Clinical and Pathological Correlations. Hong Kong: Mosby-Wolfe, pp 6-19.
10. An, S. Y., An, C. H., & Choi, K. S. (2012). Odontoma: a retrospective study of 73 cases. *Imaging science in dentistry*, *42*(2), 77-81.
11. Amailuk, P., & Grubor, D. (2008). Erupted compound odontoma: case report of a 15-year-old Sudanese boy with a history of traditional dental mutilation. *British Dental Journal*, *204*(1), 11-14.