

Compound odontoma in young girl: A Case Report

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ABSTRAK

Introduction. Odontomas are the most common type of odontogenic tumors and generally they are asymptomatic. These tumors are formed from enamel and dentin, and can have variable amounts of cement and pulp tissues. According to radiographic, microscopic, and clinical features, two types of odontomas are recognized: Complex and compound odontomas. Complex odontomas occur mostly in the posterior part of the mandible and compound odontomas in the anterior maxilla. **Case Report.** A young girl patient, 9 years old came to Department of Oral and Maxillofacial Surgery with a slow growing and asymptomatic swelling in her left posterior mandible for 5 years in his history taking. The panoramic radiograph show a radioopacity and radiolucent lesion at the lower second molar region, with well-corticated limits. An insisional biopsi confirmed as compound odontoma. The surgery performed with simple enucleation and curettage under general anaesthesia. **Discussion.** Compound odontomas are usually located in the anterior maxilla, over the crowns of unerupted teeth, or between the roots of erupted teeth. In this case report, Compound odontomas are found in the posterior mandible. **Conclusion.** Compound odontomas in the posterior mandible is a rare. The treatment of odontomas depends on the size of the lesion. The early diagnosis, the treatment of choice is conservative surgical enucleation and curettage and prognosis is excellent.

Keyword: Compound Odontoma, Mandible, Simple Enucleation

ABSTRAK

Pendahuluan: Odontoma merupakan tumor odontogenik yang paling sering terjadi dan umumnya asimtomatik. Tumor ini terbentuk dari struktur email dan dentin, beberapa diantaranya mempunyai jaringan pulpa dan sementum. Berdasarkan gambaran radiografi, mikroskopik dan gambaran klinis, odontoma dibagi menjadi 2 tipe yaitu kompleks odontoma dan kompon odontoma. Kompleks odontoma lebih sering terjadi pada rahang bawah posterior sedangkan kompon odontoma pada rahang atas bagian anterior. Laporan kasus: Seorang anak perempuan usia 9 tahun datang ke poli Bedah Mulut dan Maksilofasial dengan keluhan terdapat benjolan di posterior mandibula sejak 5 tahun yang lalu dan asimtomatik. Dari gambaran panoramik terlihat lesi radioopak dan radiolusen dengan batas jelas pada regio molar kedua mandibula. Hasil biopsi insisi memperlihatkan adanya kompon odontoma. Pembedahan dilakukan dengan enukleasi sederhana dan kuretasi dalam anestesi umum. Diskusi: Kompon odontoma lebih sering terjadi pada anterior maksila dan berada pada mahkota gigi yg tidak erupsi atau berada diantara akar gigi yang erupsi. Pada laporan kasus ini, kompon odontoma ditemukan pada posterior mandibula. Kesimpulan: Kompon odontoma pada posterior mandibula merupakan kasus yang jarang terjadi. Penanganan odontoma tergantung ukuran lesi. Terapi pilihan untuk diagnosis dini adalah konservatif dengan enukleasi dan kuretasi. Terapi ini mempunyai prognosis yang sangat baik.

Kata kunci: Kompon odontoma, mandibula, enukleasi sederhana

INTRODUCTION

Odontomas are the most common type of odontogenic tumors and generally they are asymptomatic. These tumors are formed from enamel and dentin, and can have variable amounts of cement and pulp tissues.¹ According to radiographic, microscopic, and clinical features, two types of odontomas are recognized: Complex and compound odontomas.² Compound odontomas consist of many separate, small, tooth-like denticles, where all dental tissues are represented in a structural and more orderly pattern. A complex odontoma presents as an amorphous conglomeration of dental tissues consisting of enamel, dentin, cementum, pulp and enamel organ.^{3,4} Both lesions usually present in the first two decades of life.⁴ Complex odontomas occur mostly in the posterior part of the mandible and compound odontomas in the anterior maxilla although both types of odontomas may occur in any tooth-bearing area of the jaws. Odontomas grow slowly without pain and stop growing when they are fully mature. They may cause visible swelling of the jaw. Altered patterns of tooth eruption and/

or impaction of teeth may occur. Radiographically, odontomas appear as a radiopaque mass surrounded by a radiolucent zone; recognizable but stunted tooth-like forms may be seen.⁵ In this case report, we found compound odontoma of posterior mandible in young girl.

CASE REPORT

A young girl, 9 years old came to Department of Oral and Maxillofacial Surgery with a slow growing and asymptomatic swelling in her left posterior mandible for 5 years in his history taking. Clinical examination revealed swelling over the left mandible, the overlaying skin was normal in color. On palpation, the swelling was localized and hard in consistency, with no local rise in temperature. The margin were ill defined and has 5x3x3 cm in size. (Figure 1)

Intraoral examination, gingiva on region 36 was normal in color and there were no signs of pain, infection, erythema or ulceration. On palpation was hard in consistency, ill defined margin. An insisional biopsi confirmed as compound odontoma. (Figure 2)



Figure 1. Preoperative clinical picture.



Figure 2. Intra oral picture.



Figure 4. Intraoperative picture.

The panoramic radiograph show a radiopacity and radiolucent lesion at the lower second molar region, with well-corticated limits.

One month after surgery, there were no significant postoperative complications. There is no pain, swelling and infection.



Figure 3. Panoramic radiograph.



Figure 5. Postoperative picture.

On April 2015, enucleation and curettage on left mandibular was done under general anaesthesia. The step of procedure : incision at left mandible, extraction of tooth 36, drilling of bone at 36-37 region, and taking tissue mass. The surgical wound was closed primarily by simple sutures. Histologically a diagnosis of compound odontoma was made.

DISCUSSION

Odontomas are the most common odontogenic tumor. They are considered to be hamartomas rather than neoplasms, and are composed of the tissues native to teeth: enamel, dentin, cementum and pulp tissue.^{4,7} World Health Organization identifies the types of odontomas as

compound and complex. Compound odontoma is described as a formation that all dental tissues are present and organized as tooth-like structures. The complex type contains abnormal arrangement of dental tissues, usually presenting as a radiopaque mass with varying densities. Compound odontomas are seen more often than complex ones.⁸

Odontomas may be found at any age; however, most are detected in the first two decades of life. There is no gender predilection and most lesions are detected on routine radiographs. Clinical symptoms are uncommon, however, an affected patient may present when a permanent tooth or multiple teeth that fail to erupt.⁷

These odontogenic tumors can be found anywhere in the dental arches. Compound odontomas are more commonly found in the anterior maxilla, while complex odontomas tend to favor the posterior mandible. Odontomas are generally small; however, they may occasionally grow large resulting in bone expansion.^{1,2,7} In this case report, Compound odontomas are found in the posterior mandible.

Usually, odontomas can be confidently subclassified based on the radiographic appearance alone.⁷ Radiologically, odontomas present as a well-defined radiopacity situated in bone surrounded by a radiolucent halo, typically encompassed by a thin sclerotic line. The developmental stages can be identified based on radiological features and the degree of calcification of the lesion. The first stage is characterized by radiolucency; the second stage shows partial calcification, and the third stage exhibits predominant tissue calcifications with the surrounding radiolucent halo.² The degree of calcification in primary teeth is less than permanent because of this radiographic features are less radiopaque. Therefore it is important to examine the radiographs carefully.^{3,6} Compound odontomas appear as a collection of small teeth leaving few entities in the radiographic differential diagnosis except perhaps, a supernumerary tooth. Complex odontomas appear as a radiodense mass of hard tissues which may result in a broader differential diagnosis. Both have radiolucent rims, representing dental follicular tissue or, less commonly, a dentigerous cyst.^{2,7}

The etiology of the odontoma is unknown. However, it has been suggested that trauma and

infection at the place of the lesion can offer ideal conditions for its appearance. In general they are asymptomatic, have slow growth, and seldom exceed the size of a tooth, but when large can cause expansion of the cortical bone.⁽⁹⁾

Differential diagnosis of complex odontoma includes focal sclerosing osteomyelitis, idiopathic osteosclerosis, periapical cemental dysplasia, cemento-ossifying fibroma, osteoid osteoma and cementoblastoma.³

Odontomas are treated by conservative surgical enucleation and there is very little chance of recurrence.^{1,3,6}

CONCLUSION

Compound odontomas in the posterior mandible is a rare. The treatment of odontomas depends on the size of the lesion. The early diagnosis, the treatment of choice is conservative surgical enucleation and curettage and prognosis is excellent.

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