

Cuddling Teeth: A New Terminology

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Abstract

Literature is replete with information on the diverse patterns exhibited by impacted teeth and a clinical scenario in which >1 impacted teeth appears in close proximity is documented very rarely. Occasionally, molars are found to be impacted in interesting patterns which were described previously as “rosette teeth” or “kissing molars”. This article intends to introduce a new term, namely, “cuddling teeth” to broadly describe the clinical presentations where 2 or >2 impacted teeth are found in close approximation.

Keywords: Cuddling teeth, impacted teeth, kissing teeth, rosette teeth

INTRODUCTION

A tooth that fails to erupt and will not eventually assume its anatomical arch relationship beyond its chronological eruption date is believed to be impacted.^[1] This situation could arise due to multiple factors but mainly occurs due to the presence of a physical barrier in the path of eruption of a tooth or ectopic positioning of the tooth itself. The prevalence of impacted lower third molar is estimated to be as high as 25%,^[2] whereas the corresponding figure for impacted second molars is just 0.03%.^[3] Maxillary canine tooth was the most frequent nonthird molar impaction identified, followed by mandibular premolars with an incidence of 0.92% and 0.38%, respectively.^[4] Occasionally, these impacted teeth assume interesting patterns such as kissing molars or rosette teeth. Cuddling of teeth is one such peculiar pattern which describes 2 or >2 impacted teeth found in close approximation with either the roots or the crowns facing each other.

When two molars are unerupted with occlusal surfaces contacting each other in the same follicular space and the roots in opposing direction, they are called “kissing molars” as was proposed by Robinson *et al.*^[5,6] which is particularly applicable to second and third molars only. A situation in which unerupted teeth assume a pattern wherein their roots converge and contact each other with their occlusal surfaces diverging, representing a rosette formation are called “rosette teeth”.^[7] However, the quest for a term to describe any other pattern of impacted teeth in close proximity still remains unanswered.

We discovered such different pattern of impacted teeth in close approximation such as canines and premolars impacted together, one partially impacted molar and other completely impacted molar in close approximation or two impacted molars approximating each other with the lateral surfaces. It is clear from the literature that such patterns cannot be frankly classified under the old terminologies such as kissing molars or rosette teeth. To find a solution to this issue and broadly classify varied patterns of impacted teeth in close proximity, we recommend to device a new terminology “cuddling teeth” which in general can cover varied patterns of impacted teeth in close proximity along with kissing molars as well as rosette teeth. To describe the same, we report four cases of cuddling teeth, presenting in varied patterns of approximation.

CASE REPORTS

Case 1

A 35-year-old male patient reported to our unit complaining of pain in the lower right back jaw region for 2 years which is intermittent, mild aching type, increased on chewing and subsides spontaneously without any associated symptoms. On clinical examination, 47 and 48 were found missing

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without any history of undergoing removal of the same. An orthopantomogram [Figure 1] was ordered which revealed impacted 47 and 48 in cuddling position. The patient was subjected to surgical removal of these cuddling molars under general anesthesia. Due to the proximity of the inferior alveolar nerve (IAN), utmost care was taken intraoperatively to avoid injury to the nerve. Hemostasis was achieved and primary closure was done. The postoperative phase of healing was uneventful, and the patient is asymptomatic till date.

Case 2

A 29-year-old male patient reported to our unit complaining of pain and abnormal sensation in the lower right back teeth region from the past 9 to 10 months. Pain is intermittent, sudden, and shooting in nature, which subsides after taking unknown over-the-counter painkillers. Clinical examination revealed missing mandibular second molar on the right side without any history of extraction. An orthopantomogram [Figure 2] was ordered which showed impacted 47 in cuddling position with 48. The patient was advised surgical removal of these cuddling molars which was performed uneventfully under general anesthesia. Postoperatively, the patient complained of sensitivity in 46 but unfortunately did not return for further management.

Case 3

A 40-year-old male patient reported to our unit complaining of pain and swelling in the upper right cheek region for 15 days. He was apparently normal 15 days back when he first noticed a swelling associated with mild aching pain. He used some unknown medication prescribed by a local chemist by got no relief. However, pain and swelling increased gradually with time. Hence, he visited our unit seeking treatment. On examination, there was a gross facial asymmetry secondary to the swelling on the right cheek region which was extending from the malar region to the nasolabial area, soft in consistency, and tender on palpation with localized increase in temperature. Intraorally, the swelling obliterated the vestibule in 13–16 region associated with a draining sinus having purulent discharge. Clinically, 13, 14, and 15 were found missing. Orthopantomogram [Figure 3] revealed the presence of impacted cluster of teeth in the cuddling position associated with well-circumscribed radiolucency. Based on the clinical and radiological examination, it was provisional diagnosis as a dentigerous cyst associated with impacted teeth and the patient was taken up for surgery for surgical enucleation. The excised lesion was sent for histopathological examination that turned out to be an infected radicular cyst. Thereafter, the patient is asymptomatic. Follow-up for 17 months showed no signs of recurrence till date.

Case 4

A 44-year-old female patient reported to our unit complaining of vague pain and heaviness in the lower right back teeth region for past many years. On clinical examination, teeth 46 and 47 were found missing with a history of extraction of one tooth. An orthopantomogram [Figure 4] was done which

revealed impacted 47 in cuddling position and missing 46. The patient was advised to undergo surgical extraction of 47 and 48, but the patient did not agree for the same and did not return back.

DISCUSSION

Impaction of teeth is a very commonly occurring dental phenomenon but occasionally, these impacted teeth show some interesting arrangement patterns. Few such patterns such as kissing molars or rosette teeth were described in the past. The condition kissing molars was first reported by R. F. Van Hoof in 1973, but the term was proposed by Robinson *et al.*^[5,8] It has been suggested that the absence of contact between the two impacted molars discounts them from being classified as kissing molars and these can be grouped into “rosette teeth”.

The basic difference between these two patterns lies in the fact that either the crowns of these teeth are in approximation or else the roots, but in some situations, these teeth are found holding each other in an affectionate manner like the way humans cuddle each other. To describe such a clinical scenario, a common terminology needs to be devised, and in this context, the authors would like to put forth a new broad terminology, namely, “cuddling teeth” under which different patterns of these impacted teeth can be explained better either when only the crowns of such teeth are placed together, or only roots are positioned together or a combination of these, this will facilitate better understanding of the clinical presentations of these multiple impacted teeth and can also aid in the treatment planning to some level if the patient is symptomatic.

Many theories were suggested to explain the exact etiology for altered tooth position but none of them were universally accepted. Few suggested mucopolysaccharidosis as a possible etiological factor for multiple tooth impactions.^[7] Radiographically, there may be evidence of follicular enlargement or widespread radiographic abnormality.^[9] Normal pericoronal radiolucency is considered to be in the range of 2–3 mm; however, an increase in the space can raise suspicion.^[10] Unerupted or impacted teeth have the propensity to form developmental odontogenic cysts with dentigerous cyst being the forerunner.^[11] Radiographical differential diagnosis may include a unicystic ameloblastoma, odontogenic keratocyst, adenomatoid odontogenic tumor, and hyperplastic dental follicle.^[12] A recent report suggested a genetic tendency for the possibility of an enlarged dental follicle. A possible presence of calcifications in these hyperplastic dental follicles was also suggested.^[13] Multiple impacted teeth and enlarged dental follicle with calcifications within the jaws are extremely rare.^[9]

So far, there is no evidence in the literature describing the orthodontic guidance of permanent second molars into ideal occlusal position. Literature advocates odontectomy as a decisive form of treatment even for these unusual impactions.^[9] Accurate assessment of surgical difficulty plays a crucial role in the surgical removal of such impacted teeth.



Figure 1: Two impacted molars in the right mandible



Figure 3: Three impacted teeth in the right maxilla

Factors such as the relative depth, relationship of the impacted tooth to the vital structures such as the maxillary sinus and inferior alveolar canal, number of impacted teeth with their angulation and form of roots and the lack of periodontal membrane space, all need to be carefully evaluated since they influence the final outcome.

Clinical examination often reveals a nontender, diffuse swelling over multiple impacted teeth with an egg-crackling consistency to palpation.^[12] We had no signs of egg-crackling consistency to palpation in both the cases; however, buccal cortical expansion and swelling over the alveolar ridge in the lower second molar region was evident. Radiological evaluation plays an adjunctive role in treatment planning. Radiographs in our cases showed the classical rosette pattern and kissing molar pattern. The case showing kissing molars had enlarged follicular space, whereas the case showing rosette teeth had calcifications within the follicle.

Removal of asymptomatic impacted tooth poses a considerable surgical challenge. However, considering the bigger risks associated with retaining these impacted teeth, it is advisable to remove them. Impacted teeth are removed by the transalveolar method of extraction either under local or general anesthesia. In our cases, we chose to operate under General Anesthesia and great attention was paid in avoiding IAN damage and iatrogenic jaw fracture as far as possible. Microscopic picture of both the lesions revealed a normal dental follicle. Some authors suggest bone grafting to augment the weakened mandible, but we chose not to use a bone graft as this would only increase donor site morbidity.



Figure 2: Partially impacted molars in the right mandible- one above the other



Figure 4: Partially impacted molar overlying a completely embedded molar

CONCLUSION

Presently, the term “cuddling teeth” is limited to the already documented patterns of multiple impacted teeth, namely, kissing molars and rosette teeth, but definitely more and more case reports need to be studied and documented in future to increase the horizon of this new terminology.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patients have given their consent for their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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