

SURGICAL TECHNIQUE FOR REMOVAL OF THE DISTOANGULAR IMPACTED MANDIBULAR THIRD MOLARS

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Technique

Impacted third molar removal is one of the most commonly practised procedure by an Oral and Maxillofacial Surgeon worldwide. Surgical removal of impacted mandibular third molar can be either simple and uneventful or difficult with considerable morbidity and post-operative complications⁽¹⁾.

Classification of Impacted Mandibular third molars according to Pell and Gregory can be either Class I, II, III according to the distance from the mandibular ramus or Position A, B, C according to the third molar occlusal level with respect to the second molar⁽²⁾. Depending on their angulation they can be classified as Vertical impaction(38%), Mesioangular impaction(43%), Horizontal impaction(3%), Distoangular impaction (6%), Buccoangular, inversion, etc.⁽²⁾

Distoangularly Impacted mandibular molar teeth presents a challenge for a specialist maxillofacial surgeon because of inaccessibility to sectioning of the tooth, distal path of exit of tooth root and the lack of interdental bone for elevator application. According to the Pederson scale for third molar operative difficulty, the distoangular impaction is assessed as being moderately difficult to very difficult surgery. MacGregor has also stated that distoangularly impacted mandibular third molar is considered most difficult as per the different variables of WHARFE assessment with maximum points for angulation.⁽³⁾

The percentage of complications following third molar surgeries range from 2.6% to 30.9% depending on the type and the level difficulty of impaction⁽⁴⁾. The incidence of iatrogenic accidents and surgical complications accounted for 10.4 % of all performed procedures most commonly being reactionary haemorrhage and tooth-root fractures.

Dehiscence, alveolar osteitis ,Oro-antral communication, transient or permanent paresthesia and wound infections were also observed. According to another study, distoangular impacted mandibular third molars are more inclined to develop complications.⁽⁵⁾ Improper sectioning of a distoangular tooth causes increased intra-operative difficulty to the operator because of the hampered visibility due the position of the second molar. Large muco-periosteal flap will cause more damage to neighbouring tissue and surrounding muscles.

We propose an easy and safe technique of extraction that can be used mostly in distoangularly impacted third molars. After administration of local anaesthesia, incision and mucoperiosteal flap reflection, buccal guttering and exposing the crown of the tooth, distal two thirds of the crown is sectioned in an inclined manner (figure 1) with a surgical round bur and micro-motor hand piece . After removal of distal part of crown, a small round point for elevation is created along the mesiobuccal line angle at the cemento-enamel junction with the direction being towards at the apex of the root as shown in figure with a round bur.(figure 2 and 3). If Distal crown is covered with bone it should be removed prior sectioning with round bur.(figure 4)

The specific curved apexo elevator (figure 5) is placed in the hole and distal and superior elevation is performed gradually to extract the tooth . After removal of tooth socket is debride with normal saline irrigation and closure is done .

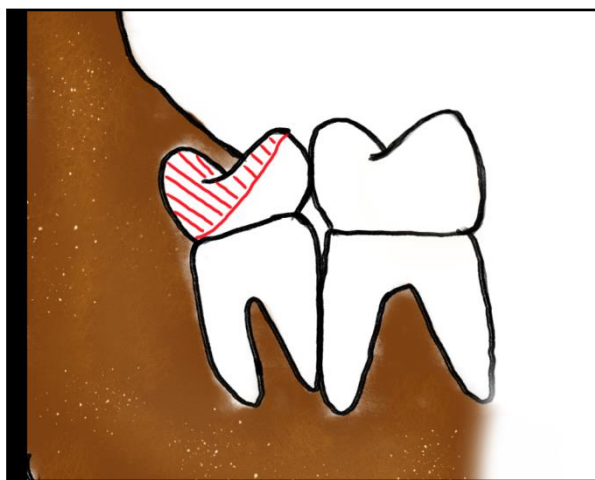


Figure 1

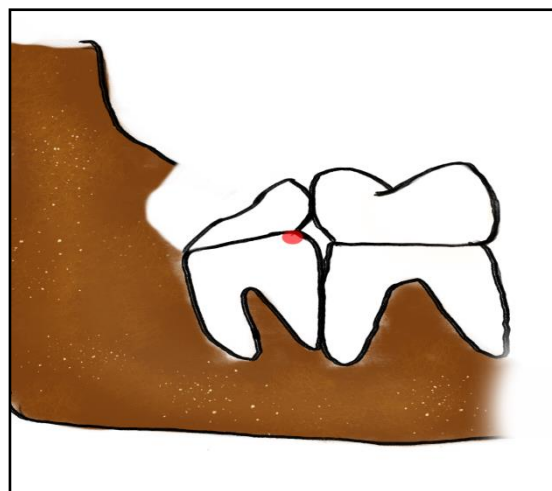


Figure 2



Figure 3



Figure 4



Figure 5

According to K Santosh Kumar⁽⁶⁾, they have reported one technique in which they have used European pattern conventional cow horn forcep by placing them in between second and third molar but its contraindicated to use during distal caries on second molar or mesial caries on third molar . This technique also can cause injury to sound second molar or interdental bone . This new technique can enable rapid and safe extraction of most of the impacted distoangular mandibular third molars, particularly those with deep level of furcation (Type C) and fused roots where vertical sectioning till the apex might be difficult⁽⁷⁾. In case of caries on the mesial part of third molar or distal part of second molar ,a point of elevation is made on

buccal side of cemento-enamel junction being directed towards apex and gradual lingual and distal movement is given to remove the tooth.

CONCLUSION

Removal of distoangular third molars can be challenging but understanding the tooth anatomy and preserving the alveolar bone as much as possible are key factors to avoid post operative complications. The technique mentioned here has proven to be less time consuming, conservative in approach and easy to master.

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