

Effect the third molars on the mouth in Bani waleed City

Mohamed daw emhemed*¹, Samia Alzaroug Ahmed²

¹ BDS,MDS,dental TECHNOLOGY depatmentn ,faculty medical technology BANI WALEED UNIVERSITY,LIBYA

² BDS,MDS, dental TECHNOLOGY depatmentn ,faculty medical technology BANI WALEED UNIVERSITY,LIBYA

mohamed_emhana@yahoo.com

ABSTRACT This study aimd is to determine the number of third molars each person, impacton, angulation, level, and space eruption of third molar between second molar and ramus of the mandible study was conducted in bani waleed city for 6 months representing 5 different clinics in the city .A total 500 patient selected ages between 18 -50 years. All Patients visited five different clinics To study the eruption status of third molar in in bani waleed city, with different impaction pat-terns and agenesis of third molars. The results showed the number of third molar in 500 patient was 1918,were874 teeth in the upper jaw and 945 teeth in the lower jaw

The angular position of maxillary and mandibular wisdom teeth.the mandibular third molar haigher of mesial inclanation (44. 76%), follow by distal inclination (7. 72%) vertical (34. 28%), follow horizontal (13. 22%).The maxillary third molar showed higher frequency of vertical angulation (74. 37%), followed by distoangulatio (20.93%) , mesial inclination (4. 04%)

Nearly 40% of the right and left mandibular third molars were impacted . The most common type of impaction was mesioangular impaction There is a high rate of third molar impaction. It is occur in the mandible than the maxilla. -angular impaction is mostly found in the mandible and vertical angulation in the maxilla.

methods: A total of 500 patients (295 females and 205 males) who were visited five different clinics in bani waleed city. those all patients who had complete complement of teeth with the age group between 18- cted am of the present study is to determine the number of third molar per person, angulation, level, amount of space for eruption of third molar between ramus of mandible and second molar The aim of the present study is to determine the number of third molar per person, angulation, level, amount of space for eruption of third molar between ramus of mandible and second molar

Keywords Third molar, impaction third molar, extraction, depth of impaction

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I. Introduction

The wisdom teeth, or third molars, they are located at the back of the upper and lower jaws and are the last permanent teeth to erupt in the mouth. These teeth usually appear between the ages of 17 and 25.this delay in eruption is reason for third molars impaction teeth.(Akarslan and Kocabay2009)

Facial growth, jaw size, tooth size is important to the eruption, impaction of third molars. Impacted wisdom teeth can cause pain, swelling, and infection, and may caries adjacent teeth. related diseases (e.g., pericoronitis, caries, odontogenic cysts.), especially caries, root resorption, and periodontal diseases of their adjacent teeth, have received extensive attention from patients and dentists. The removal of diseased or symptomatic wisdom teeth reduce pain and improves oral health and function

II. Methods:

This study was conducted in bani waleed city for 6 months representing 5 different clinics in the city .A total 500 patient selected ages between 18 -50 years. All Patients visited five different clinics .each clinic was visited by 100 cases and we examined all patients to determine number of third molars, level eruption, angulation and space eruption of third molar between second molar and ramus of the mandible all patients examined clinically to see and to diagnose the status of wisdom teeth as partially, completely erupted and impacted . After clinical examination the teeth which were partially erupted or impacted was subjected for panoramic radiographic (opg) are individual as horizontal, vertical, mesioangular, distoangular, level eruption.

We examination for third molars: dental caries, partially or fully impaction, missing, extraction, periodontitis, trauma, orthodontics treatment, prosthodontics reasons, associated with a pathological lesions (such as cysts), root canal treatment. This study were patient's according age, sex, education level, occupation status

Sigs of third molars teeth eruption

1. **Impaction:** One of the most common issues associated with wisdom teeth is impaction, where they fail to fully emerge or erupt through the gum line. This can occur due to limited space in the jaw or their improper positioning. Impacted wisdom teeth can lead to pain, swelling, and potential infections.
2. **Crowding:** Wisdom teeth can contribute to crowding of the other teeth in the mouth. If there's insufficient space for the wisdom teeth to erupt properly, they may push against neighboring teeth, causing misalignment or shifting.
3. **Infections and gum disease:** Partially erupted or impacted wisdom teeth can create pockets of space where bacteria can accumulate and cause infections, leading to gum inflammation (pericoronitis) or gum disease (periodontitis).
4. **Damage to adjacent teeth:** Wisdom teeth that emerge at an angle or in an incorrect position can exert pressure on adjacent teeth, potentially causing damage such as tooth decay, root resorption, or bone loss.
5. **Difficulty in oral hygiene:** Due to their location at the back of the mouth, wisdom teeth are often challenging to clean properly, making them more susceptible to cavities and gum problems.
6. **Cysts or tumors:** In rare cases, cysts or tumors can develop around impacted wisdom teeth, which may cause pain, swelling, and potential damage to surrounding structures like bone or nearby teeth.

When a tooth is unable to fully enter the mouth, it is said to be, impacted teeth are unable to break through the gums because there is not enough room.

Third molars Growth are easier to remove when the patient is younger, because roots are not completely formed , and there is less damaging nearby nerves or adjacent tooth. Removal of third molars teeth at a later age becomes more difficulty and complicated as the roots have fully completely formed and may involve the nerve, and the jawbone is denser.

Impaction wisdom teeth occur when the third molars, do not have enough space to fully emerge or develop in a proper alignment within the mouth. This can lead to various issues and discomfort. Here are some key points about impacted wisdom teeth:

1. **Causes:** The main reason for impacted wisdom teeth is a lack of space in the jaw. Size of the jaws has evolved over time, and now it's often too small to accommodate the extra set of molars. As a result, the wisdom teeth may become Angled or partially trapped beneath the gum line.
2. **Types of impaction:** There are different types of impaction based on how the wisdom teeth are positioned:
 - Vertical impaction: The tooth is fully submerged in the jawbone but remains upright.
 - Mesioangular impaction: The tooth is tilted forward, leaning towards mesially.
 - Distoangular impaction: The tooth is tilted backward, leaning towards distally.
 - Horizontal impaction: The tooth is positioned parallel to the other teeth.
3. **Symptoms:** Impacted wisdom teeth often do not cause any symptoms initially. However, when problems arise, common signs and symptoms include pain, swelling, tenderness, and infection in the back of the mouth. These symptoms may come and go periodically.
4. **Complications:** If untreated, impacted wisdom teeth can lead to various complications, such as
 - Pericoronitis: Inflammation of the gum tissue surrounding the impacted tooth due to bacterial infection.
 - Decay and gum disease: Partially erupted wisdom teeth can be challenging to clean properly, leading to an increased risk of cavities (caries) and gum disease in both the impacted tooth and adjacent teeth.
 - Crowding and shifting of teeth: Wisdom teeth can exert pressure on adjacent teeth, causing shifting and misalignment, which can impact the overall dental alignment.
5. **Treatment:** Impacted wisdom teeth that are causing pain, infection, or other complications are typically recommended for removal. The extraction procedure is often performed by a dentist or oral surgeon .The specific technique used depends on the level of impaction and the complexity of the case. Local anesthesia or sedation may be used to ensure comfort during the procedure.

The sample consisted of panoramic radiographs of 500 divided (295 females and 205 males) between 18and 50 years

Nearly 40% of the right and left mandibular third molars were impacted . The most common type of impaction was mesioangular impaction

Table 2. Type of mandibular third molar impaction distributed per tooth position (left or right).

Impaction type	Right mandibular Third molars	Left mandibular Third molars
Not impacted	219	250
Horizontal	23	41
Vertical	68	67
Mesioangular	185	135
Distoangular	5	7
Total	500	500

problems eruption wisdom teeth

The third molar is characterized by time of formation, and time of eruption. Wisdom teeth formation begins between 3 and 4 years of age. Calcification starts at 7 to 10 years with crown completion between 12 and 16 years of age. Third molar eruption usually occurs in the age group of 17 to 25

A tooth bud consists of 3 basic units: (1) enamel organ from which arises enamel; (2) the dental papilla, which in turn gives rise to dentin and the tooth pulp; and (3) the dental sac,

can also arise when the shape of the jawbone and other facial structures make removal of this tooth The impacted Wisdom tooth in an unusual and difficult to remove position. The situation significantly more difficult.

Level eruption

Occlusion third molar was same level or above occlusion plane of adjacent second molar (extrusion). The occlusion plane below occlusion plane of second molar (intrusion)

If you do not have enough room in your mouth for your third molars to erupt and they become impacted, several detrimental results can occur.

Infection – Without enough room for total eruption, the gum tissue around the wisdom tooth can become irritated and infected, resulting in recurrent pain, swelling and problems with chewing and swallowing.

Damage – If there is inadequate room to clean around the wisdom tooth, the tooth directly in front, the Second Molar, can be adversely affected resulting in gum disease (bone loss) or cavities (more appropriately known as dental caries or decay).

Disease – Non-infectious diseases can also arise in association with an impacted wisdom tooth. Cysts are fluid-filled “balloons” inside the jawbone which are associated with impacted teeth and slowly expand destroying adjacent jawbone and occasionally teeth. They can be very difficult to treat if your wisdom teeth are not removed in your teenage years. Although rare, tumors can be associated with the delayed removal of wisdom teeth.

Crowding –many feel that impacted wisdom teeth directly contribute to crowding of the teeth which is most noticeable in the anterior teeth. This is most commonly seen after a patient has had braces or in early adulthood and retained, impacted wisdom teeth are likely to play a contributory role. Although wisdom tooth removal cannot be recommended to absolutely eliminate It possible role in future crowding and other bite changes.

Pericoronitis — inflammation and infection of the soft tissues around a partially erupted tooth often. Other associated conditions include dental caries, resorption of the roots of the adjacent tooth, and rarely cyst formation and tumors.

III. Results and discussions

Results: The results showed the number of third molar in 500 patient was 1918,were874 teeth in the upper jaw and 945 teeth in the lower jaw

Table 2 shows the angular position of maxillary and mandibular wisdom teeth.the mandibular third molar haigher of mesial inclination (44. 76%), follow by distal inclination (7. 72%) vertical (34. 28%), follow horizontal (13. 22%).The maxillary third molar showed higher frequency of vertical angulation (74. 37%), followed by distoangulation 20.93%) , mesial inclination (4. 04%)

Table 1. Sample distribution based on sex and age.

Age group	Male	Female	Total
18–23	32	35	67

Age group	Male	Female	Total
24–29	41	90	131
30–35	45	31	76
36–41	37	100	137
42–50	50	39	89
Total	205	295	500

Table 2. The Angular position of Mandibular and Maxillary third Molars

site	vertical	horizontal	mesioangular	distoangular	total
maxilla	650 (74. 37%)	6(0. 68%)	35(4. 04%)	183(20.93%)	874(48. 04%)
mandible	324 (34. 28%)	125(13. 22%)	423(44. 76%)	73(7. 72%)	945(51. 95%)
total	974(53. 54%)	131(7. 20%)	458(25. 17%)	256(14. 07%)	1819

IV. Conclusion

There is a high rate of third molar impaction. It is occur in the mandible than the maxilla. -angular impaction is mostly found in the mandible and vertical angulation in the maxilla.

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