



ASSESSMENT OF MORPHOMETRIC INDICATORS OF WISDOM TEETH

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Abstract

The purpose of the study is to conduct a comparative assessment of the morphological parameters of the upper jaw during normal eruption of wisdom teeth and their retention. Using standard craniological instruments, the parameters of the upper jaw were measured by dividing the skulls of 80 adults into 4 groups: 1st - with erupted third molars; 2nd - without the base of wisdom teeth; 3rd - with unilateral preservation of the upper third molars and 4th - bilateral retention. According to its morphological measurement parameters, it was found that the upper jaw with bilateral retention is as close as possible to the upper jaw, which lacks the base of wisdom teeth, and the upper jaw with unilateral retention is located on the upper jaw with fully erupted third molars. It was found that the length of the alveolar arch, the distance between the ducts, the distance between the prosthesis and the base and the distance from the incisors to the large palatine opening were significant in the studied groups. Along with this, with difficult eruption of 3 molars, a decrease in the parameters of the bone palate is shown, as well as the presence of differences in the structure of the gnathic part of the face associated with a more distal position of the upper jaw during retention. Complete and timely eruption of wisdom teeth has a significant impact not only on the growth of the upper jaw, but also on the vertical profile of the face

Introduction:

Of the 200 wisdom teeth examined, 50% erupted with a delay. The number of preserved wisdom teeth on the lower jaw is greater than on the upper one. The lower jaw is dominated by preserved wisdom teeth located inside and distal to the upper jaw. To prevent the development of inflammatory processes during the eruption of a wisdom tooth, remove its base at the stage of the formed crown, if at least 1 of the morphological indicators does not match

Keywords: wisdom teeth, retention of wisdom teeth

In recent decades, as a result of the progressive development of medicine, modern dentistry has achieved significant success in the prevention and treatment of many diseases of the maxillofacial areas. However, there are still many areas of dental science that require further research using modern diagnostic and treatment methods. These include the problem of difficulty in eruption of wisdom teeth. Retention and dystopia of wisdom teeth determine the development of





inflammatory processes in the posterior molars and adjacent anatomical spaces. According to some authors, in 56-75% of cases, the eruption of the lower wisdom tooth can lead to various complications from ulcerative gingivitis, periodontitis to acute purulent periostitis and parotid sputum, since wisdom teeth can lead to a real disaster, starting with eruption, methods are needed to prevent this process. To prevent the development of inflammatory foci, the primary diagnosis of wisdom tooth rash at the stage of the formed crown is carried out by measuring the main morphological parameters, if the indicators deviate from the norm, it is necessary to remove the original wisdom teeth, which will avoid inflammation in the area of the posterior molars [1, 2]. S.Asname and Y. Kasasaki (1993) developed a classification of the spatial position of the wisdom teeth of the lower jaw and, accordingly, the medial tilt, vertical position, distal tilt, horizontal position, inversion, cheek tilt, tongue tilt, book version, there is a bilingual version and a monolingual version. The main directions of eruption of the lower wisdom tooth are: inward (the tooth leans forward, pressing on the rest of the teeth from behind); distally (the tooth deviates in the distal direction).; Vertical (teeth are located at right angles, but cannot be cut); horizontal (the teeth are located in a plane perpendicular to the rest of the teeth of the jaw) [3]. The purpose of this study is a comparative assessment of the main morphological parameters of wisdom teeth. Materials and methods The study included 18 patients aged 40-50 years who underwent orthopedic surgery (22 men, 28 women). Both wisdom teeth and retention teeth were usually considered. To assess the localization of wisdom teeth in the dentition, a "patient passport" was developed, which allows you to assess the location and nature of wisdom teeth loss. This included the results of a retrospective analysis of the orthopantomogram and the values of the measured basic shape measurement indicators. Figure 2.1.1. 3. The distance from the point "X i" to the distal surface of the 2nd molar is shown in Figure 10. 4. The angle of inclination of the wisdom teeth The general assessment of the position of the wisdom teeth was given according to the following indicators: whether the tooth has completely erupted; is held inward, distally, horizontally or vertically; is missing or removed; is placed in the dental arch or not. Using the Corel Draw program, we measured the following morphological parameters of the wisdom tooth, presented below (n=81): The average crown size is the distance from the inner approximate surface of the crown to the distal surface 1). 2. The distance from the branch of the mandible to the distal surface of the second molar is measured between the line, drawn along the anterior edge of the lower jaw, and a line parallel to it along the distal approximate surface of the second molar (Fig. 2). 3. The distance from point "Xi" to the distal surface of the second molars (Fig. 3). The point "Xi" is located in the center of the mandible branch. To find the center of



the mandible branch, draw 2 parallel vertical lines along the anterior and posterior edges of the mandible branch and 2 more parallel horizontal lines along the notch and lower edges of the mandible branch. The intersection of the two diagonals of the resulting rectangle will be the desired point "Xi". Next, the distance from point "Xi" to the vertical line drawn along the distal approximate surface of the second molars is measured. 4. The angle of inclination of the wisdom tooth (Fig. 1) determines the angle of inclination of the wisdom tooth. 4). Measurements are made along the lower edge of the lower branch of the lower jaw. - 33% of wisdom teeth erupt completely, 90% of them are located in the dentition, and 10% lead to malocclusion; - It turns out that 50% of wisdom teeth have growth retardation, of which 46% are medial, 29% are distal, 12% are horizontal, 11% are vertical. There are wisdom teeth on the lower jaw, which have a greater holding capacity than the upper jaw. The upper jaw was dominated by wisdom teeth located distally, which amounted to 61%, and horizontally located teeth accounted for 2%. Wisdom teeth located medially prevailed in the lower jaw – 67%, and distally located - 2%. The main morphological indicators of preserved wisdom teeth in the lower jaw varied and deviated from those of normally erupted wisdom teeth (table). Conclusion: 1. Of the 200 wisdom teeth examined, 50% were postponed. There are wisdom teeth on the lower jaw, which have a greater holding capacity than the upper jaw. The lower jaw is dominated by the preserved wisdom tooth located inside the upper jaw, that is, distally. 2. For normal eruption of the lower wisdom tooth, the following indicators are necessary: the internal size of the crown is 13.5-13.7 mm; the distance from the branch of the lower jaw to the distal surface of the second molar is at least 14 mm; the distance from point "Xi" to the distal surface of the second molar is at least 35 mm (point "Xi" is the center of the branch of the lower jaw); the angle of inclination is not less than 40° by 90°.

To conclude: The point is as follows. 3. In order to prevent the development of inflammatory processes during the eruption of a wisdom tooth, it is necessary to remove its base at the stage of the formed crown, if at least 1 of the morphological parameters does not match.

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