Central Asian Journal of Medicine

## MORPHOMETRIC INDICATORS OF THE FACIAL SKELETON IN INDIVIDUALS WITH COMPLETE AND PARTIAL ADENTIA

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### ABSTRACT

In scientific research, dentists focus on individual changes found in the jaw-face area. One of the main methods for assessing indicators in the tooth-jaw system is based on the fact that morphometric indicators determine the compatibility of tooth sizes with the indicators of the tooth-jaw. Therefore, it is advisable to study and identify topographic identities of anatomical derivatives of the jaw-facial area before orthopedic, orthodontic treatment of patients with dental-jaw research using biometric studies [1, 3].

Key words: adentia, orthopedic dental care, patients, dental arch defects, biometric study, morphometry.

#### **INTRODUCTION**

In scientific research, dentists focus on individual changes found in the jawface area. One of the main methods for assessing indicators in the tooth-jaw system is based on the fact that morphometric indicators determine the compatibility of tooth sizes with the indicators of the tooth-jaw. Therefore, it is advisable to study and determine the topographic identities of anatomical derivatives of the jaw-facial area before orthopedic, orthodontic treatment of patients with dental-jaw-jaw-jawjaw-jaw-jaw-jaw-jaw-jaw research using biometric studies [13].Complete or partial tooth loss is considered a very severe and irreversible condition and is defined as" the final marker of disease-causing damage to oral health " [22;]. When the teeth are lost, changes occur in the tooth-jaw system. The teeth that have lost their antagonists and the bone tissue that surrounds them are pushed in the direction of antagonists that do not exist in the opposite jaw. If deformation is not prevented with timely prosthetics, the tooth shift becomes so deep that morphological and functional disorders occur as a result. Naumovich S. A. (2014) suggested that sliding teeth create blocking conditions for lower jaw movements, whereby the greater the degree of displacement, the heavier the blocking factor. This may result in periodont traumatic and articulatory disorders in displaced and defective blocking teeth, causing periodont malaise, and changes such as osteoarthritis in the Chaka-lower jaw. In addition, teeth that have lost their antagonists can shift to the point where they reach the alveolar tumor mucosa in the opposite jaw. All this limits the denture of the teeth and makes it impossible to perform it without preliminary preparation for normalizing the dental row occlusion curve [ 6-12 B;]. The issue of the existence of the main cause of Parodont disease or the fact that it develops as a result of the interaction of a periodontal complex with a certain combination of a number of factors, such as maintaining its morphological essence, adaptation to changing conditions of the internal and external environment, loss of ability to optimally capture active self-control mechanisms, quantitative and qualitative changes The individual peculiarities of the structure of the jaws are manifested by the fact that they change in shape, size, as well as the indicators of individual parts that are part of their composition [33, 95-96 B;].In this case, knowledge about the variability of age and gender-related legalities of dental arches in the structure of the craniofascial complex helps to distinguish the structural variants found in the norm from pathology, as well as to increase the effectiveness of diagnostics carried out before surgical operations on the jaws. For this reason, the study of issues related to the morphology and morphometry of dental arches is relevant to identify the morphofunctional basis for improving and developing new methods of diagnostic and surgical procedures [40, 28-32 b;].The prevalence of pathologies observed in the jaw-facial area with a decrease in the height of the gnatic part of the face is very high and ranges from 11% to 60%, according to various experts [108, 67-70 B;]. Such differentiation is due to the imperfection of diagnostic methods, differences in terminology, classification of forms of reduction of the facial gnatic part and the absence of clear forms. On top of that, experts have not clarified the etiological factors of pathology and the dynamics of development. The partial absence of teeth directly affects the quality of life of the patient. The partial absence of teeth leads to disorders that have become infected until complete loss of teeth, the loss of the body's vital function - the possibility of food original chewing, which has its own effect on digestive processes and the fall of the necessary nutrients into the body, and is also often the cause of the development of diseases of an inflammatory nature in the gastrointestinal tract. The consequences of partial tooth loss affecting the social condition of patients are also considered serious: violations of

articulation and diction affect the patient's communication skills, these disorders can lead to changes in appearance as a result of tooth loss, as well as a change in mental-emotional state, a violation of the psyche, simultaneously with the development of atrophy in the original chewing muscles. The partial absence of teeth also causes the development of specific complications in the jaw-face area, such as the Popov-Godon phenomenon, Chuck-lower jaw dysfunction, as well as The Associated painful syndrome. In the absence of partial teeth, failure to timely and qualitatively restore the integrity of the tooth rows leads to such functional disorders as overload of the parodont of the remaining teeth, the development of pathological edirence, violation of the biomechanics of the tooth-jaw system. Failure to treat the partial absence of teeth in a timely or qualitative manner leads to periodontic diseases in the tooth-jaw system, and in the distant future - to complete loss of teeth – to the absence of teeth in both jaws [11].Partial adentia, no matter what duration, leads to a violation of the integrity of the muxim system, that is, the tooth row, in the original chewing apparatus. This is a very significant violation in the structure of the entire tooth-jaw structure, since it is in the upper and lower jaws that the activity of the tooth rows ensures the effectiveness of the original chewing, which is one of the functions of the body. Adaptationcompensator mechanisms are triggered to adapt to these conditions at a time when the functional original chewing system has changed [25] .Anomalies in the toothjaw system lead to occlusion disorders, the occurrence and rapid development of periodont diseases, violation of the aesthetic mood of a person.With the development of secondary deformities in the tooth rows against the background of anomalies in the tooth-jaw system, pathological symptoms characteristic of anomalies and deformities are added in the partial loss of teeth [28]. The partial absence of teeth is a common disease among the adult population all over the world, and therefore the problem of restoration of the original chewing apparatus is extremely relevant. The presence of defects in the tooth Arch leads to a violation of the integrity of the tooth row as well as the appearance of morphofunctional changes in the tooth-jaw joint, which first appear next to the defect, and then spread throughout the tooth row. This leads to vertical displacement and deviation of the teeth, occlusion disorders and changes in the Chaka-lower jaw [4, 68 b;].Thus, the partial secondary adentia of the population remains at a high level nowadays. The fact that patients do not resort to timely medical care for the caries of their teeth, as well as do not regularly contact the dentist for preventive purposes, as well as non-compliance of the population with personal preventive measures leads to an increase in tooth loss, and then to tooth-jaw changes associated with the absence of separate dental guruchsinig.Complete or partial

tooth loss is considered a very severe and irreversible condition and is defined as" the final marker of disease-causing damage to oral health "[6, 10, 12]. When the teeth are lost, changes occur in the tooth-jaw system. The teeth that have lost their antagonists and the bone tissue that surrounds them are pushed in the direction of antagonists that do not exist in the opposite jaw. If deformation is not prevented with timely prosthetics, the tooth shift becomes so deep that morphological and functional disorders occur as a result. Naumovich S. A. (2014) suggested that sliding teeth create blocking conditions for lower jaw movements, whereby the greater the degree of displacement, the heavier the blocking factor. This may result in periodont traumatic and articulatory disorders in displaced and defective blocking teeth, causing periodont malaise, and changes such as osteoarthritis in the Chaka-lower jaw. In addition, teeth that have lost their antagonists can shift to the point where they reach the alveolar tumor mucosa in the opposite jaw. All this limits the denture of the teeth and makes it impossible to perform it without preliminary preparation for normalizing the occlusion curve of the tooth rows [8, 13, 14]. The issue of the existence of the main cause of Parodont disease or the fact that it develops as a result of the interaction of a periodontal complex with a certain combination of a number of factors, such as maintaining its morphological essence, adaptation to changing conditions of the internal and external environment, loss of ability to optimally capture active self-control mechanisms, quantitative and qualitative changes The individual peculiarities of the structure of the jaws are manifested by the fact that they change in shape, size, as well as indicators of individual parts that are part of their composition [3, 16]. In this case, knowledge about the variability of age and gender-related legalities of dental arches in the structure of the craniofascial complex helps to distinguish the structural variants found in the norm from pathology, as well as to increase the effectiveness of diagnostics carried out before surgical operations on the jaws. For this reason, the study of issues related to the morphology and morphometry of dental arches is relevant to identify the morphofunctional basis for improving and developing new methods of diagnostic and surgical procedures [4, 17]. In the jawface area, the prevalence of pathologies observed with a decrease in the height of the gnatic part of the face is very high and ranges from 11% to 60%, according to various experts [9, 18]. Such differentiation is due to the imperfection of diagnostic methods, differences in terminology, classification of forms of reduction of the facial gnatic part and the absence of clear forms. On top of that, experts have not clarified the etiological factors of pathology and the dynamics of development. The partial absence of teeth directly affects the quality of life of the patient. The partial absence of teeth leads to disorders that have become infected until complete loss of

teeth, the loss of the body's vital function - the possibility of food original chewing, which has its own effect on digestive processes and the fall of the necessary nutrients into the body, and is also often the cause of the development of diseases of an inflammatory nature in the gastrointestinal tract. The consequences of partial tooth loss affecting the social condition of patients are also considered serious: violations of articulation and diction affect the patient's communication skills, these disorders can lead to changes in appearance as a result of tooth loss, as well as a change in mental-emotional state, a violation of the psyche, simultaneously with the development of atrophy in the original chewing muscles. The partial absence of teeth also causes the development of specific complications in the jaw-face area, such as the Popov-Godon phenomenon, Chuck-lower jaw dysfunction, as well as The Associated painful syndrome. In the absence of partial teeth, failure to timely and qualitatively restore the integrity of the tooth rows leads to such functional disorders as overload of the parodont of the remaining teeth, the development of pathological edirence, violation of the biomechanics of the toothjaw system. Failure to treat the partial absence of teeth in a timely or qualitative manner leads to periodontic diseases in the tooth-jaw system, and in the distant future - to complete loss of teeth - to the absence of teeth in both jaws [11, 19].Partial adentia, no matter what duration, leads to a violation of the integrity of the muxim system, that is, the tooth row, in the original chewing apparatus. This is a very significant violation in the structure of the entire tooth-jaw structure, since it is in the upper and lower jaws that the activity of the tooth rows ensures the effectiveness of the original chewing, which is one of the functions of the body. Adaptation-compensator mechanisms are triggered to adapt to these conditions at a time when the functional original chewing system has changed [5, 20, 21]. Anomalies in the tooth-jaw system lead to occlusion disorders, the occurrence and rapid development of periodont diseases, violation of the aesthetic mood of a person.With the development of secondary deformities in the tooth rows against the background of anomalies in the tooth-jaw system, pathological symptoms characteristic of anomalies and deformities are added in the partial loss of teeth [9]. The partial absence of teeth is a common disease among the adult population all over the world, and therefore the problem of restoration of the original chewing apparatus is extremely relevant. The presence of defects in the tooth Arch leads to a violation of the integrity of the tooth row as well as the appearance of morphofunctional changes in the tooth-jaw joint, which first appear next to the defect, and then spread throughout the tooth row. This leads to vertical displacement and deviation of the teeth, occlusion disorders and changes in the Chaka-lower jaw [4]. Thus, the partial secondary adentia of the population remains

at a high level nowadays. The fact that patients do not resort to timely medical care for the caries of their teeth, as well as do not regularly contact the dentist for preventive purposes, as well as non-compliance of the population with personal preventive measures leads to an increase in tooth loss, and then to tooth-jaw changes associated with the absence of separate dental guruchsinig.Modern medical science and the practical health system pay great attention to improving the provision of specialized assistance to people of different age groups, these actions they are aimed at improving the quality of life [8]. According to the UN Department for economic and Social Affairs, almost 700 million people over 60 years of age currently live in the World [2]. As of 2050, the number of individuals over the age of 60 exceeds two billion and they make up more than 20% of the population of ER shari [7]. The increase in the proportion of elderly and elderly people, aging of the population, is a demographic peculiarity of the present time. That being said, the high level of dental morbidity of the population is explained by various factors, among which the patient's behavior and awareness can be cited. A.M. Karpov and hammual. (2015) note that the patient's actions during dental treatment largely depend on his psychological state. In terms of the negative impact on the condition of the organs and tissues of the original chewing apparatus in a person as a result of the problem of providing dental assistance to people of older, including older age groups, including tooth loss, is hardly discussed in the literature of scientific and popular medicine [6]. According to a number of researchers, when determining the strategy for providing dental services to the population, the demographic situation and the priorities identified with its development should be based on the epidemiologically based need for dental care, as well as its effectiveness. In this, it is necessary to take into account the attitude of elderly people to the condition of their teeth and oral cavity, low interest in life, their acceptance of dental service, fear of expensive payment [6]. After the removal of the teeth, there is a sharpening of the facial appearance caused by the enlargement of the nose-lip angle and the bulging angle of the nose. External changes are almost imperceptible against the background of the elimination of the main symptom. In addition, quantitative changes in angles occur within the physiological range. After the teeth are taken, the lifting of the bite is positively reflected in the aesthetics of the face: the free attitude of the lips, the corners between the chin-lip and lips are freely held as a result of an increase in size, the depth of the above-chin line is reduced, but at the same time the lower jaw rotates along the Such attention is paid to the problem of correcting distal occlusion of the tooth rows at the time [15] .A biomechanical model of the initial stage of the movement of teeth under the influence of pressure of orthodontic devices has been

presented. Direct results and analysis of the treatment of distal occlusion of the tooth rows are given. The duration of treatment of growing patients did not differ reliably. Treatment lasted longer when teeth were removed in the older age group [4]. Treatment of patients in an incomplete state of teeth remains a very complex problem so far [8]. A.M. Sipkin and hammual. (2011) believe that distal implantation surgery needs to be performed, with about 20% of patients who have partially or completely lost their teeth having limitations for this operationalization due to not having enough bone tissue in the alveolar tumor of the upper jaw. It should be noted that, according to the information in the literature, the number of cases of incapacity of persons of this age at the reception of a therapist dentist is 0.04% of total appeals [3]. The data obtained indicate the low quality of orthopedic dental care provided to elderly and elderly persons. Almost all those examined (96.9%) were found to need it [5]. The main type of orthopedic treatment necessary for elderly and elderly persons is dental prosthesis, which is removable (partially removable, byugel and fully removable prostheses) [9].Tooth loss, changes in the oral mucosa, poor-quality removable dentures reduce the body's adaptive capacity in combination with chronic general somatic diseases [8], as well as significantly reduce the quality of life of elderly and elderly individuals [9]. Thus, the peculiarities of the modern demographic situation, the state of dental health of the population of the older age group and the various levels of dental care lead to an increase in socio-economic and medical problems and require structural changes in the health system aimed at increasing the volume and popularity of dental care for the elderly.

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