



## THE USE OF A MODERN COMPUTERIZED SYSTEM IN THE DIAGNOSIS, PROGNOSIS AND TREATMENT OF RETENTIVE PERMANENT POSTYANNYH CANINES

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<p><b>Received:</b> 26<sup>th</sup> January 2021 <b>Accepted:</b> 7<sup>th</sup> February 2021 <b>Published:</b> 27<sup>st</sup> February 2021</p>	<p>The article describes the methods of using a modern computer system in the diagnosis and prediction of permanent affected teeth. An extensive review of the literature of foreign and domestic scientists is presented, the main factors of the occurrence of anomalies of retented permanent postyannyh canines are considered in detail. Common causes of delayed eruption of the teeth characterized by the use of modern approaches to the study and treatment planning.</p>
<p><b>Keywords:</b> Baby teeth, retention, dental anomalies, computed tomography.</p>	

In most cases, the presence of a sunken tooth pile in the thickness of the bone tissue will not have any clinical manifestations. A retarded lint tooth is most often detected accidentally during an X-ray examination of the jaw for some reason [28,29,30]. Signs of a recession object: the absence of a corresponding tooth, the incorrect position of adjacent teeth in the dentition, a bulge on the outer or inner surface of the body or an alveolar tumor of the bulge of the upper jaw bone, neuralgic pain, a feeling of paresthesia in the teeth or lips, in cases where there are no diseased teeth and their absence.[2, 8].

The classical scheme of examination of the affected pile tooth of orthodontic patients with retention consists of a clinical examination, anthropometric methods of examination of the face, plaster models of the jaws, graphic methods, functional, radiographic methods of examination [1, 2,]. However, it is possible to determine the segment of the affected lint of the tooth, jaw or alveolar tumor with a high probability based on the data obtained during X-ray examination [3, 4]. A number of authors recommend in practice to determine the position of the jaw in one or more projections of intraoral circumcircular X-rays, the position of the jaw in panoramic retention images, the position of the affected tooth, the position of its root and the position of the roots of neighboring teeth, as well as the position of the periapical teeth.[8].

Modern authors recommend the use of spiral computed tomography, as today mambai maximum information [1,2]. Computer tomography in dentistry has significantly increased diagnostic capabilities, thanks to the accuracy of the image, it will be possible to obtain an objective picture of the clinical situation, as well as to choose the most accurate and effective treatment plan. The diagnostic role of computed tomography is very great, since during the examination it is possible to obtain images of sections of any tissue structures with a thickness of 1 mm. The basis of this technique, during the movement of the object (X-ray tube), the layer-layer with X-ray light consists in studying in several directions, lighting the object. The inedible part of the Rays is registered in the sensors, after which the signal from them is received and processed by the computer's computing system. Then all the information from the source is displayed on the screen as an image of the structure under study. Thus, computed tomography allows you to study simulated structures in any plane in Real time without repeating other images without surgical intervention .

Spiral cone-beam computed tomography is considered among modern foreign and Russian authors as a method of choice for the study of patients with dental retentions. E.A. Bragin et al (2005) proposed an optimal method for determining the area and size of the elements of the dental jaw system based on data obtained from orthopantomography and computer tomography. This method consists in studying the orthopantomogram and computer tomogram in Photoshop software using a scale grid with the specified parameters [6]. When the image is enlarged, the grid is enlarged with the image, which makes it possible to very accurately measure any parameters in the images. This method allows you to perform a comparative analysis of images taken from patients at different times and to observe the dynamics without linear and angular changes. This experience showed that at the present stage of the development and integration of Medicine and higher mathematics, it was possible to realize joint achievements in practical dentistry. This further serves to further the research of prospects in this direction.

There are methods of removing retention of the teeth using removable braces. One such method is described as an orthodontic device that acts on the jaw with a single jaw that is removed. Its main elements are the movable pelotium, which presses on the root of the tooth, and the tooth platform for lifting the tooth. With the help of non-removable devices, we recommend the author's structural brackets made of very hard plastic with three hooks. Such

a bracket should be strengthened to the point where the crown part of the retention tooth is opened by the surgeon. It is suggested to try to pull out such a tooth using a rubber force that is attached to the same or dependent dental cators [8]. Yursa Hamush (1995) conducted research in the field of complex treatment of diastema, dystopia and retention in early and late prosthetics. He gave his tips and recommendations for using the ambulance handpiece to reduce pressure and vibration and the associated discomfort when handling bone tissue. The author explained the proposal to use a polymer matrix based on cryopresipiate starch with a solution of copper derivatives of chlorophyll instead of turunda by scientific researchers in several literary comparisons[1, 5].

1. The longitudinal axes are located at an angle from  $100^\circ$  to  $106^\circ$ , and the crowns are located within the IV or III zones of the alveolar tract, the teeth are considered convenient for surgical intervention and subsequent tooth extraction.

2. When the longitudinal axis is less favorable for exposing and then removing the tooth, the angle of inclination is about  $120^\circ$ , but still the crown is located in the IV or III zone of the alveolar tumor.

3. If the longitudinal axis of about  $120^\circ$  is at a large angle of inclination, but the crowns are located in the II zone of the alveolar tumor, retention teeth are considered unfavorable for surgical treatment and orthodontic treatment.

4. Located in the II and I zones of the alveolar tumor with crowns, with an inclination of  $120^\circ$  or more from the longitudinal axis, retention teeth are considered very unfavorable.

5. The angle of rotation of the tooth axis is directed against the normal direction of exit, prosthetics are recommended after its crowns are completely uncomfortable and removal of retention teeth located in the I-zone of the alveolar tumor is recommended.

A. I. Arsenina et al. (1997) recommended that patients over the age of 14 perform a compactosteotomy along the retented root of the tooth. At the stage of orthodontic treatment, it is recommended to use non-removable devices, while when using braces that open the tooth to create space in the cathode, it is recommended to use elastic forces on the jaw, with the exception of the bund. The author used a weak 50-80 g of orthodontic force to install ratanasiripong teeth. At the same time, the average duration of treatment was 12-18 months [2]. In the treatment of these orthodontic pathologies, a number of Russian authors-Mikhailova E. V., (1998) and Stepanov G. V., (2002), who proposed a method for installing it in a dental catheter simultaneously by transplanting a retented tooth. This method was successfully used by researchers in 3 clinical cases in patients of high school age. Due to the traumatic nature of the method and the high probability of complications, it is not widely used. Stepanov G. V. (2002) in his work, the author suggests a method for obtaining a ketmaket tooth, starting with the central incisor teeth. The essence of the method is to achieve a full-fledged eruption with the subsequent transfer of the lateral cutting teeth to the medial ones, the use of stimulating methods and the installation of the teeth of the upper jaw in the dentition [4]. A number of literature sources provide information about the effective use of laser radiation to accelerate the yield of retention dental crowns [2].

Literatures as a holistic method of treatment by stimulation, based on the additive effects of two main factors: This is the effect of a drug substance and the effect of a low-intensity laser beam with a wavelength of 0.63-0.89 microns. The mechanism of drug transfer under the influence of low-frequency laser radiation is quite complex and has not yet been fully studied. Depending on the power density of the light flux, a low-intensity laser beam has a different physiological effect. Thus, a laser beam with a power density of 0.1-100 MW / cm<sup>2</sup> normalizes the processes of regeneration of kuchaitiradi, microcirculation at 100-200 MW/cm<sup>2</sup> increases the level of oxygen in the tissues and reduces the permeability of blood vessels, and at a power density of 200 MW/ cm<sup>2</sup>-causes an increase in metabolic processes in bone tissue. The direct effect of low-density laser radiation on tissues is only up to 8 mm, and all the effects that occur at great depth are associated with mediated mechanisms of primary tissues under the influence of low-density laser radiation.

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But it is more effective in the treatment of patients with teeth whose roots have not formed retention, and reduces the number of surgical interventions by 1.5 times. The use of the functional device was 2.3 times less, and the duration of treatment was also reduced [4]. According to clinical and experimental studies, the success of treatment of teeth with a separate recession will depend on the degree of formation of the gums and jaws, the localization of the degree of space deficit in the dentition. When there is a severe shortage of space, the authors recommended that it be created by expanding or overlapping the rows of teeth [7].

In the presence of persistent teeth and with the correct position of the permanent tooth that has undergone a recession, it is suggested to remove the baby tooth. In the early stages of treatment, temporary retention of the tooth

is recommended, inconvenient placement of the permanent tooth in the thickness of the bone tissue, especially when the patient is over 15 years old. The authors suggested that the impact pile tooth, incorrectly positioned with orthodontic braces on the lateral section of the tooth of the same name, has an indirect effect. According to the authors, the latent section of the tooth root affects the crown of the tooth that has suffered a recession, and the crown of the affected tooth that has suffered dystopia, thereby changing its longitudinal axis. The combined use of physical methods (finger massage, electrotherapy, vacuum and vibration therapy) to influence the area of the pile of the tooth bearing the alveolar tumor, allowed to increase the effectiveness of treatment. The most favorable period of application of the method is until the end of the formation of the root of the tooth that has suffered a recession [ 11].

There is a prosthetic method for treating a permanent tooth that has undergone a recession. This should only be used when the methods of installing a retentive tooth on the dentition are ineffective. The method has a number of disadvantages and does not always give results in the restoration of physiological occlusion, in the restoration of aesthetic norms of morphology and facial-jaw bone [3].

As a result of the development and improvement of orthodontic and surgical methods of treatment, it is now possible to eliminate many anatomical and functional disorders of the tooth-jaw. However, there are no specific criteria for choosing a particular treatment method [ 8].

Thus, additional study and introduction of modern methods in the diagnosis of permanent teeth that have suffered a recession and thus ensure the stability of treatment results.

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