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CLINICAL EXPERIENCE OF TREATMENT PATIENTS WITH SINGLE SAVED TEETH

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The one of the most pathology of the dentoalveolar system its partial loss of teeth. Violation of the dentition leads to defects, to assess which developed different classifications, which are the basis of the wording of the Orthopedic diagnosis. Among them, the most famous classifications are Kennedy, A. I. Betelman, E.I. Gavrilov [2].

A special feature of the E.I. Gavrilov classification its allocation jaws with individually preserved teeth in the separate group [2, 3]. The problem of preserving single teeth with partial removable prosthetics is still relevant [6, 7]. This is due to the ability of the teeth to perceive vertical loads, unloading the mucous membrane, significantly reduce atrophy degree of the alveolar process. Most often the jaws remain canines, in such cases, we have a point fixation of dentures with significant or complete atrophy of the alveolar process, this finally makes difficult dentures stabilization and reduces the period of its use. With chewing movements, we can see

the sharp shift of the dentures, almost all the load falls on the remaining tooth, and leading to its premature loss. Prosthetics treatment, in this case, is a difficult task due to the features of the clinical picture of the oral cavity. These teeth most often have an unfavorable relationship between the length of the root and the height of the clinical crown that extends beyond the occlusal plane. The loss of antagonists leads to increase the clinical crowns height due to a secondary displacement of the teeth. An increase of tooth clinical crown leads to increase the load on the root, and rapid loss of these teeth after treatment older people with limited periodontal adaptability clasp fixation removable dentures [4, 8].

The special literature discusses of the appropriateness of preserving single teeth, especially on the lower jaw, even with their mobility, as well as the use of telescopic fixation and root anchors [5, 7]. The periodontal receptors of single preserved teeth provide higher tactile sensitivity, creates conditions for the more effective functioning of dentures [1].

When the last tooth is extracted, we can see disrupted of the dynamic function of chewing muscles, changed their neuro-reflex regulation and atrophic processes become especially noticeable.

Therefore, the important task it's saving of single teeth and supporting tissues of the prosthetic area for a longer period. The purpose of the study was to investigate the possibility of improving the functional value of partial removable laminate dentures and to reduce the negative impact on the prosthetic area and separately preserved teeth by increasing the boundaries of the dentures base due to vestibule area of the oral cavity of the single saved tooth. Reduction of the dentures basis size to the boundaries, the same of the complete absence of teeth, pre-planning occlusal plane position with the determination of the ratio of the remaining teeth to it, as well as modeling of the individual occlusal surface.

Material and methods. Clinical observation was carried out for 12 patients aged 58 to 75 years old, who were treated with partial removable laminate dentures, in the presence of separately saved teeth. The patients treated on both jaws (5 cases) and with edentulous upper jaw (7 cases) with single saved teeth on the lower jaw.

Manufactured in total - 17 removable dentures. Preliminary diagnostic models were obtained and wax rims were used to determine the central relationship of jaws to estimate the ratio of remaining teeth to the occlusal plane, to solve the problem of the size of the teeth and cover them with artificial crowns.

Surveying of diagnostic models was performed to determine the route of insertion of the dentures and to reveal alveolar process retentions area of the existing teeth. In this case, the models were tilted on the surveying table in such a way that the tooth axis coincided with the analyzing rod of the device. Further on diagnostic models produced individual tray-bases with wax rims.

Usually, the limits of dentures basis pass in the area of missing teeth along the transitional fold of buccal and labial areas, bypassing the mobile strands of mucous membrane, frenulum of the tongue and lower and upper lips.

Individual tray-bases, which we did, reached the transitional fold in the area of gingiva slope of the single saved tooth, we suggest the called open tray-basis with wax rims. In the clinical stage of finding the way of dentures insertion with open tray-basis, we can check to assess the effect of artificial gum in the area of the single saved tooth on the contours of faces lower third and, in particular, the contours of the soft tissues surrounding the mouth slit.

Their adjustment was carried out by means of limited functional tests and passive movements. The use of the Herbst test in full considered inexpedient due to the decrease in the dentures basis area.

After fitting and determining the central relationship of the jaws at the edge of open tray-basis (thickness not less than 1.5-2 mm), was applied thermoplastic material for the border modelling of the open tray-basis, next took impressions with light-body of the silicone impression material with the boundaries of the functionally sucked, as for cases with complete absence of teeth. A.L. Sapozhnikov's ruler used for occlusion plane modeling [2, 4].

Results and discussion. Analysis of the treatment results during 2 years of observation, showed: in 8 patients there was a good fixation and stabilization of the dentures, gingival margin without inflammation, single teeth were saved. In 2

patients the supporting tooth mobility increased, 1 patient lost the supporting tooth, and 1 other patient had an inflammation of the marginal gingiva. It should be noted; these were cases with the separately retained 3rd degree of mobility teeth on the lower jaw.

Therefore, we can say that the use of the technique we have given makes it possible to improve removable dentures fixation and stabilization and, at the same time, to preserve the remaining teeth for a longer time, to prevent the rapid atrophy of part of the alveolar process due to the correct distribution of loads between the teeth and the prosthetic area. Since the increase in the size of dentures base on the lower jaw is limited by the topographic and anatomical features of prosthetic area, it seems to us important to use the parietal alveolar process in single saved tooth to increase dentures base area and, accordingly, the decrease in the specific pressure occurs in the prosthetic area. Expansion of the dentures basis boundaries is especially important with a considerable atrophy of the alveolar process, considering that in the region of single saved teeth it remains better and will be an additional factor of anatomical retention. So, the alveolar process in the region of single saved teeth is covered with basis on both sides, and the tooth fixing with wire clasp or Kemeny clasp. The use of surveying in the study of the model makes it possible to identify undercuts on the alveolar process and their early blocking, to facilitate the application of the ready dentures. For an order to prevent trauma, necessary and indispensable condition for the application of dentures is the release of marginal gingiva on both sides from the tight fit of the dentures basis. Continuous artificial gums in the frontal area often allow improving the aesthetic parameters of the face, straighten out the creases and wrinkles on lips and cheeks, which is positively assessed by patients.

Prostheses with a continuous artificial gum may mask the defect or deformation of the dentoalveolar system, especially with jaw disproportions, if the dentures are made on a jaw with smaller dimensions.

With significant undercuts detected by the survey, these areas can be filled with a layer of elastic plastic. Even with a considerable atrophy of the alveolar process, in the area of the teeth, it remains better and serves as an additional point of anatomic

retention of the dentures, because dentures displacement under loads is limited not only by the tooth but also by the parietal slope of the alveolar process.

Conclusions. Extended baseline boundaries stabilize the dentures and lay teeth loss, and after teeth extracted, the dentures easily repaired and turn into a complete removable denture, since its borders are functionally decorated. This corresponds to the principles of volumetric modeling of the bases of prostheses, contributes to the restoration of lost contours of the face and positively influences the appearance of the patient. The partial removable laminate dentures made using this technique require more attention and time when applied, but they have higher functional and aesthetic indices and the save prosthetic area tissues and teeth for a longer term.

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