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ASSESSMENT OF THE STATE OF THE PARODONTAL TISSUES OF THE TEETH INTERMEDIATE WITH THE LATERAL DEFECT OF THE DENTITION WHEN THEY ARE REPLACED BY DIFFERENT CONSTRUCTIONS

Today, the replacement of the lateral defect of the dentition is possible with the use of removable partial denture and dental implants. This issue is especially relevant in patients with chronic generalized periodontitis who have resorption of the alveolar process of the upper and lower jaw. One of the conditions for achieving remission and stabilization of the filling-dystrophic process in the periodontal tissues is an even distribution of the load during chewing. The purpose of the study is to assess the condition of the periodontal tissues of the teeth bordering the lateral defect of the dentition when the defects are replaced with various structures in the early term of observation (two years).

Research methods. *In order to achieve this goal, we replaced the lateral defects of the dentition with the help of removable partial denture with clasp fixation (1st group) and Alpha dent active bio dental implants (2nd group). In each group there were 15 patients with chronic generalized periodontitis of the 1st degree of severity.*

The use of clasps in bite prostheses made it possible to reduce their negative impact on the periodontal tissues of the supporting teeth due to the redistribution of the chewing load. Alpha dent active bio dental implants had a triangular shape of the implant body at the level of the transition of cortical bone to cancellous bone, due to which the necessary primary stabilization and good anti-rotation effect of the implant was achieved. Prosthetics on dental implants were carried out according to a two-stage method.

All patients underwent a comprehensive clinical examination using both generally accepted dental methods and filling out a periodontogram using the "Paon Parometer" periodontometer, the "Periotest M" periotester to determine the degree of tooth mobility and x-ray research methods. The initial values of the loss of epithelial attachment in both groups were within 3.5 mm, the periotestometry values of the teeth bordering the terminal defect of the dentition ranged from +8 to +19, resorption of the alveolar process up to 1/3 of the length of the tooth root. All patients underwent a course of treatment, after which they were under the dispensary supervision of a dentist. The assessment of the local status and condition of the teeth bordering the defect was carried out 6, 12 and 14 months after the end of prosthetics. The degree of resorption of bone tissues around the teeth, their mobility and loss of epithelial attachment were determined.

All research results were processed using the methods of variational statistics for small samples. Conclusions. The results of the conducted study indicate the feasibility of restoring the final defects of the dentition in patients with chronic generalized periodontitis of the 1st degree with the help of dental implants Alpha dent active bio. This method leads to a decrease in the chewing load on the supporting tissues of the teeth, especially those bordering on the tooth row defect. This creates conditions for achieving remission and stabilization in patients with chronic generalized periodontitis and improves the lives of the latter.

Key words: *generalized periodontitis, dental implants, removable partial denture, dentition lateral defect.*

To date, approximately every third Ukrainian at the age of 25 has already lost 1-2 teeth, at the age of 50 has about half of the missing teeth. One of the main causes of tooth loss in the adult population is chronic generalized periodontitis (1,p. 17). This disease has a chronic course and is characterized by the appearance of symptomatic gingivitis, periodontal pockets and progressive resorption of the bone tissue of the alveolar processes with the further development of traumatic occlusion. One of the conditions for achieving remission and stabilization of the ignition-dystrophic process in periodontal tissues is the uniform distribution of the load during chewing (2, p.346). Replacement of the lateral defects of the dentition in this category of patients at the stages of clinical rehabilitation is especially relevant (3, p.116).

Modern methods of dental practice involve the use of removable structures (removable partial dentures, clasp dentures) and fixed constructions based on dental implants.

Each of these methods has its own disadvantages and advantages. The use of removable dentures allows you to more evenly distribute the masticatory load between the teeth and the mucous membrane of the alveolar process. At the same time, the use of these prostheses is inconvenient, since they must be removed and put on every day.

A more convenient method of replacing the lateral defects of the dentition is dental implantation, but in patients with chronic generalized periodontitis it was contraindicated for a long time due to the high risks of implant complications, which manifested themselves in the form of disintegration of dental implants, progressive bone resorption (4, p.86). The appearence of new implants in shape and surface expands the indications for their use. One of the main advantages of dental implantation is themanufacture of a fixed structure (5, p.8).

Therefore, the purpose of our study was to assess the state of the periodontal tissues of the teeth bordering on the lateral defect of the dentition when replacing defects with various designs in the next observation period (two years).

Materials and methods.

To achieve the set goals, we carried out the replacement of the lateral defects of the dentition with the help of removable clasp prostheses with clasp fixation (group 1) and Alpha dent active bio dental implants (group

2). Each group included 15 patients with generalized chronic periodontitis of the 1st degree of severity.

The use of clasps in clasp prostheses made it possible to reduce their negative impact on the periodontal tissues of the abutment teeth due to the redistribution of the masticatory load. Dental implants Alpha dent active bio had a triangular shape of the implant body at the level of the transition of the cortical bone into the spongy bone, due to this, high primary stabilization and a good antirotation effect of the implant are achieved. Prosthetics on dental implants was carried out according to a two-stage technique.

All patients underwent a comprehensive clinical examination using both conventional dental methods and periodontogram filling using the Pa-on Parometer, Periotest M to determine the degree of tooth mobility and radiographic methods of examination. The initial values of the loss of epithelial attachment in both groups were within 3.5 mm, the value of periotestometry of adjacent teeth with a lateral defect in the dentition was from +8 to +19, resorption of the alveolar process up to 1/3 of the length of the tooth root. All patients underwent a course of treatment, after which they were under dispensary observation by a dentist.

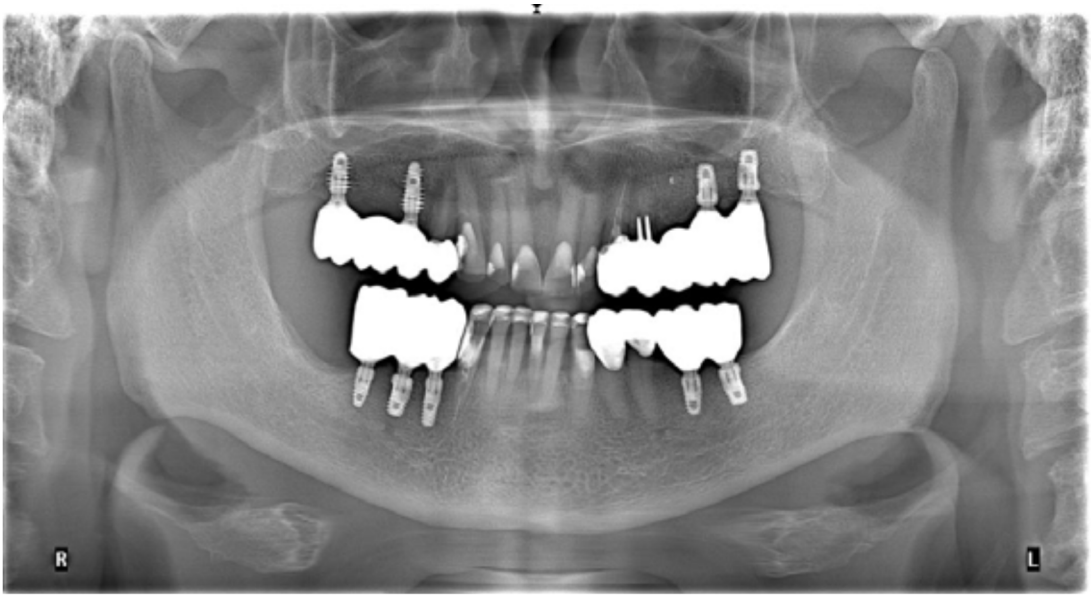
Assessment of the local status and condition of the teeth bordering on the defect was carried out 6, 12 and 14 months after the completion of prosthetics. The degree of bone tissue resorption around the teeth, their mobility and loss of epithelial attachment were determined.

All results of the study were processed using the methods of variation statistics for small samples.

Results of the study and discussion

As a result of the study, the following results were obtained. The condition of the periodontal tissues of the abutment teeth bordering on the lateral defect of the dentition in patients of the first group after 6 months had the following indicators: the loss of epithelial attachment remained within 3.5 mm, the value of periotestometry was from +11 to +22 and the degree of bone resorption was within 1/3 tooth root length. Visually clear was pale pink, without visible pathological changes. After 12 months, the loss of epithelial attachment remained within 3.5 mm, and the values of periotestometry increased by another 2–3 units. Resorption of the alveolar process was up to 1/3 of the length of the tooth root. After two years of using clasp prostheses, we observed the following values in the area of adjacent teeth with a defect. Namely: an increase in the loss of epithelial attachment by 1.0–1.5 mm and an increase in periotestometry values by 5–9 units. At the same time, an increase in the resorption of the alveolar processes up to 2 mm was determined in comparison with the initial values. Clinically clear in the area of the supporting teeth in 5 patients were hyperemic, without the presence of exudate. In two patients, after 12 months, an exacerbation of chronic generalized periodontitis was observed, which was associated with non-compliance with treatment and recommendations by patients. The data obtained indicate an overload of the supporting teeth due to the influence of fixing clasps and changes in the relief of the prosthetic bed when using clasp prostheses, which can lead to a progressive loss of epithelial attachment and bone tissue of the alveolar process in the area of adjacent teeth with a defect.

In the second experimental group, the loss of epithelial attachment after 6 and 12 months and a year after the end of prosthetics remained within 3.5 mm. The condition of the bone tissue in the area of the teeth adjacent to the dental implants remained unchanged during all periods of observation and lay within up to 1/3 of the length of the tooth root. The value of periotestometry of adjacent teeth with implants improved by 1-2 units after 12 months and by 2-4 units after two years of functioning of the orthopedic structure. Exacerbation of chronic generalized periodontitis



The replacement the lateral defects of the dentition in patients with generalized periodontitis

in patients of the second group was not observed. The results of the study indicate the advantage of using dental implants to replace the final defects of the dentition in patients with generalized periodontitis (Fig. 1).

Conclusions. Thus, the results of the study indicate the feasibility of restoring the lateral defects of the dentition in patients with chronic generalized periodontitis of the 1st degree using Alpha dent active bio dental implants. This method leads to a decrease in the masticatory load on the supporting tissues of the teeth, especially those adjacent to the defect of the dentition. Thus, conditions are created to achieve remission and stabilization in patients with generalized chronic periodontitis and improve the lives of the latter.

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