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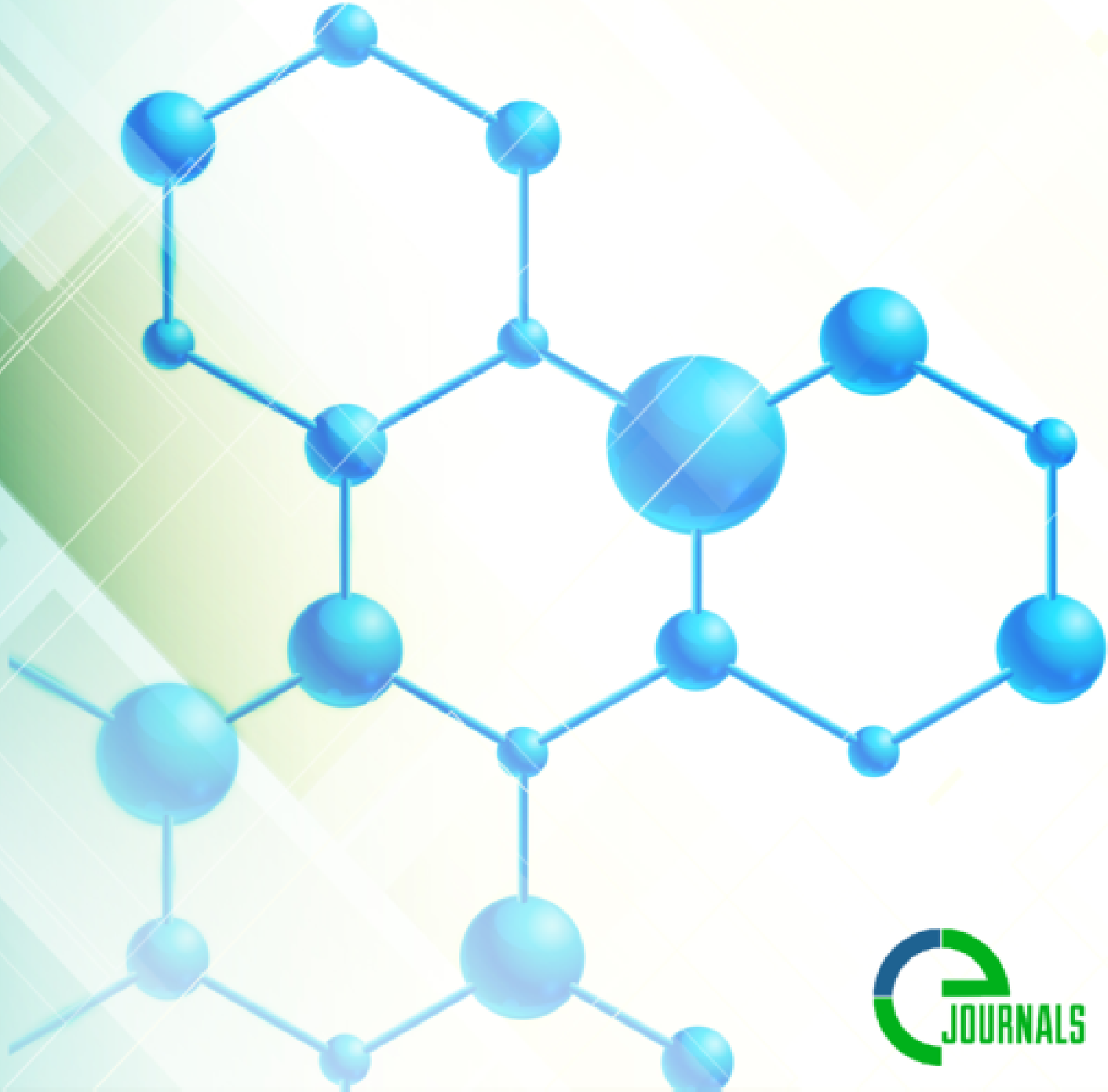

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EVALUATION OF EARLY INFLAMMATORY CHANGES IN THE PERIODON OF THE BASIC TEETH

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Relevance Many people experience discomfort associated with missing teeth, and according to a number of World Health Organization forecasts, the number of people with partial tooth loss is increasing. Accordingly, the need of the population for qualified orthopedic dental services may increase, all of which depends on the level of study of the human body and the density of implanted dentures. (Prokudin I.N., 2010; Rudenskiy O.V., 2011).

Today, a wide range of raw materials are used in the manufacture of dentures in orthopedic dentistry. These include stainless steel, KXS, porcelain, plastic and their compounds. Depending on the design of the denture planned by the doctor, the patient selects the material for the denture. Apriori, it can be assumed that the process of adaptation of the patient to the prostheses depends on the quality of his preparation. Nevertheless, there are many articles in the literature on the study of the effects of prostheses on the prosthetic tissues and the body in general, the process of adaptation to them.

Objective: To study the effects of non-metallic ceramics on prosthetic tissues, as well as the acid-base balance of saliva and mineral hemostasis in the study of improving the quality of orthopedic treatment of patients with partially missing teeth.

Materials and research methods: We examined 185 people who applied to the Samarkand Regional Dental Clinic for dental orthopedic care, of which 90 were men and 95 women aged 25 to 60 years, including the control group – 20 healthy people, did not use dentures and had all teeth ; The main group – 106 people. All patients were divided into groups depending on the treatment performed:

Group 1, patients with non-welded coated prostheses (CC) – 35 people, 124 prostheses;

Group 2, patients with metal-ceramic coating (MCC) – 36 people, 40 prostheses were made

Group 3, patients with zirconium-coated prostheses (TsQ) – 35 people, 38 prostheses were made.

A total of 202 prostheses were made.

To assess the initial inflammatory changes in the periodontium of the primary teeth, we used the RMA index in the Parma modification (1960). This method is based on the Shillera-Pisareva test to detect inflammation in the gums. The gum periodontium of the base teeth was separated from the saliva and isolated with Shillera-Pisareva solution or Lugol's Iodine solution. The iodine contained in the above solutions reacts with glycogen, which accumulates in tissues during chronic inflammation. As a result of the reaction, the gums take on shades of light brown to dark brown. Inflammation of the gums near a tooth ® is rated 1 point, inflammation of the gum line (M) – 2 points, inflammation of the alveolar gums (A) – 3 points.

We calculated the numerical value of the RMA index for the sum of the indicators of all the base teeth using the formula:

RMA = I point / (3 x number of teeth) x 100%

X-ray examination includes orthopantomograms for structures before and 6, 12, 24, and 36 months after prosthesis placement and, if necessary, targeted periapical radiography of the base teeth. X-ray images were used to determine the accuracy of the coating edges adhering to the tooth

neck, the degree of periodontal tissue destruction, and the depth of the periodontal pocket (if any); periapical tissue of bone teeth was detected. Based on X-ray and clinical examination data, we calculated the value of the periodontal PI index.

To assess the condition of periodontal base teeth, we also used the periodontal index RÍ (Russell, 1956), which allows to identify and describe significant pathological changes in its tissues. The following clinical signs play an important role in the assessment of scores:

0 – no inflammatory changes;

1 – mild gingivitis, inflammation does not cover the entire gums around the tooth;

2 – round gingivitis, the gums of the teeth are not damaged;

Same as 3 – 2 points, but the radiograph shows bone resorption in the interveolar area;

4 – inflammation of the entire gums with the formation of a pathological pocket of the gums, bone resorption of the alveolar segments to 1/3 – ½ of the tooth root, the mobility of the tooth does not exceed I degree;

5 – significant destruction of periodontal tissue, the presence of pathological pocket of the gums, tooth mobility II – III degree, impaired tooth function, resorption of alveolar bone tissue exceeds the length of the tooth root.

We calculated the Russell index using the formula:

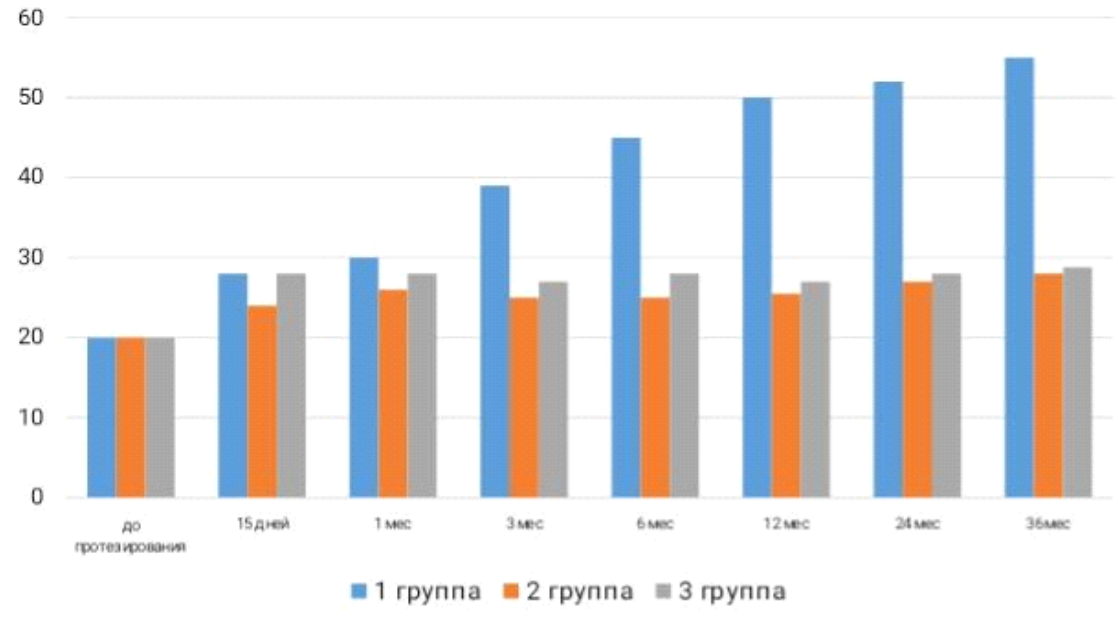
PI = 2 points / number of teeth examined

The method of preparing the teeth for stamped, one-piece, metal-ceramic coatings did not differ from the standard. To minimize the impact of orthopedic constructions on the periodontium, dental teeth were made at a level at the edge, and base teeth for hard and metal-ceramic coatings were prepared, which provided maximum support on the one hand. Aesthetics in the case of cast and metal-ceramic construction prostheses, on the other hand, prevented periodontal injury during the manufacture and wear of prosthetic structures. Return of the gum edge before removal of the mold for a clear view of the ledge was carried out for 10 minutes before removing the corrective mold using the combined method using retraction thread size 00 (Zhermack, Switzerland) 00 (Zhermack, Switzerland). .

Prosthetic bed molds for non-removable constructions were obtained using Zetaplus (Zhermack, Switzerland) C-silicone mold material. The frames of metal-ceramic prostheses are covered with ceramic mass «Vita Omega 900» made of alloy «Wiron-99» («Vita», Germany). All types of non-removable structures are mounted on Fuji-Í (GC, Japan) glass ionomer cement.

RESULTS OF OUR RESEARCH

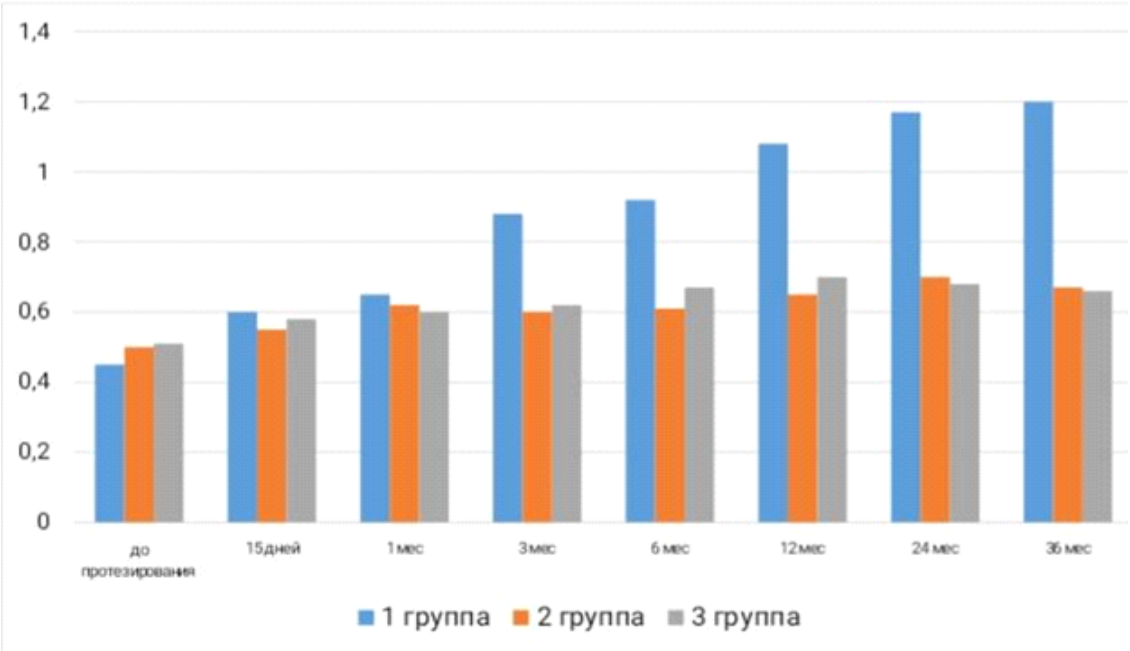
Our clinical examination was aimed at determining the condition of the prosthetic structures by the patient



The RMA index in the control group patients was 20.14 ± 0.97%. In patients with PC, the RMA index value was 29.35 ± 0.54% after 5 months, 30.25 ± 0.5% after 1 month, 39.28 ± 0.61% at 3 months after prosthesis placement, 44.56 ± 0.5% at 6 months, and 49.51 ± 0.6 at 12 and 24 months. And 51.23 ± 0.55%. According to the study, the RMA index in the group of patients with PC was 52.34 ± 0.55%, which is 2 times higher than in the control group.

For patients with PC prostheses, the RMA index increased by 24.48 ± 0.43% in 0.5 months after prosthetics, by 26.93 ± 0.29% in 1 month, by 26.91 ± 0.23% in 3 months, by 26.86 ± 0.45% in 6 months, by 12 and 24-. 26.95 ± 0.24 and 27.63 ± 0.71%, respectively. The RMA index was 27.55 ± 0.35% in patients with MKKP.

The RMA index value in patients with TsQKP group 0.5 months after prosthesis placement was 27.36 ± 0.43%, after 1 month 29.15 ± 0.27%, after 3 months – 28.52 ± 0.26%, after 6 months – 29.25 ± 0.5%, 12 and 24 after a month – 28.63 ± 0.38 and 29.15 ± 0.5%. According to the study, the RMA index for the group of patients with TsQKP prosthesis was 29.24 ± 0.45%.



The value of the Russell index in the control group patients was 0.5 ± 0.03. For PC patients, the RMA index was 0.61 ± 0.02 at 0.5 months after prosthesis placement, 0.65 ± 0.03 at 1 month, 0.87 ± 0.04 at 3 months after prosthesis placement, 0.95 ± 0.05 at 6 months, and at 12 and 24 months – 1.07 ± 0.06 and 1.19 ± 0.03 and remained at this level until the end of the study.

For patients with TsQKP prostheses, the Russell index was 0.57 ± 0.03 after 0.5 months after prosthesis placement, 0.63 ± 0.04 after 1 month, 0.61 ± 0.03 after 3 months, 0.63 ± 0.03 after 6 months, 0.67 ± 0.03 and 0.68 ± after 12 months and 24 months. Was equal to 0.02. The Russell index was 0.65 ± 0.02 in patients with TsQKP.

In the group of patients with prosthetics TsQKP 0.5 months after prosthetics, the Russell index was 0.59 ± 0.03, 0.61 ± 0.03 after 1 month, 0.63 ± 0.02 at 3 months, 0.67 ± 0.03 at 6 months, and 0.69 ± 0.02 at 12 and 24 months. . The Russell index for the MKKP prosthetic patient group was 0.67 ± 0.04, according to the study.

CONCLUSION

The change in the RMA index describes the inflammatory events present at the gingival edge of the teeth. In our case, teeth covered with artificial veneer, including teeth that are part of a bridge prosthesis, were examined. Comparing the values of the RMA index for the same prosthetic constructions that differ only in the presence of ZDP TT, we can note the greater value of the RMA index for ZDP TT prostheses, which allows us to draw conclusions about the harmful effects of ZDP TT on the gum edges of teeth. Thus, crushing and crushing welded prosthetic structures with and without ZDP TT have a significant negative impact on the gum edge tissue of the teeth of the prosthetic bed.

For patients with TsLDP and MK prostheses, the RMA indices reached 26.95 ± 0.35 and 28.63 ± 0.31% 1 month after prosthesis implantation and remained at the same level until the end of the study. The slight increase in the RMA index for patients with TsLDP and MK prostheses is explained by the effect of chemical elements in the form of ions released from these structures on the gum edge tissue of the teeth. It should be noted that the differences in the RMA index values for prostheses TsLDP (26.95 ± 0.35%) confirm our previous conclusion that the prosthetic bed of PDP TT had a negative effect on the gum edge tissue of the teeth.

Twelve months after prosthesis placement, the Russell index values for TsLDP and MK prostheses were 0.67 ± 0.04 and 0.64 ± 0.04, respectively, and remained at that level until the end of the study. These indicators show a negligible effect of TsLDP and MK coatings on periodontal tissues.

Used literature.

1.VylejaninaT.A.Metabolic reactions of epithelial cells of the tenth nipple in periodontal pathology // Morphology. 2006. - № 4. - p. 35.

2.Joludev S.E. Osobennosti protezirovaniya polnymi sъemnymi protezami i adaptatsiya k nim u lits pojilogo i starcheskogo vozrasta Sposoby lecheniya neperenosimosti sъemnyx zubnyx prostez // Uralskiy meditsinskiy zhurnal. 2012. - № 8.-S. 31-35.

3.Aps J.K. The physiology of saliva and transfer of drugs into saliva / J.K. Aps, L.C. Martens // Forensic Sci Int. - 2005.- Vol. 150, №2-3. - P. 119-131.

4.Banan L.K. Plaque and salivary pH changes after consumption of fresh fruit juices / L.K. Banana, A.M. Hegde // J Clin Pediatr Dent. - 2005.- Vol.30, №l. - P.9-13.