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IMPLANTS IN THE PRESENCE OF MILLED METAL AND METAL-FREE FRAMES IN THE PROSTHESES

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Abstract
Concept review for the design and manufacture of metal implant framework for hybrid implant prostheses. Concept review for the design and manufacture of metal implant framework for hybrid implant prostheses.

Keywords: dentistry, prosthetics, crown, efficiency, implants.

Introduction:
Patients without teeth report difficulties in managing complete dentures. Marachlioglou et al. (2010) reported that patients had higher expectations with respect to full dentures than dentists who treated them. Dentists reported that dentures are less likely to benefit patients than patients. Patients with complete dentures have also reported reduced chewing function in that they avoided certain food types because they were simply unable to chew certain foods (Gjengedal et al. 2011). Lin et al. (2010) reported the results of a clinical study that investigated the relationship between chewing ability and diet in elderly patients without teeth. About 58% of the subjects reported dissatisfaction with dentures and 51% reported discomfort with chewing. Satisfaction of patients during mastication or dissatisfaction with dentures significantly affected the diet of these elderly patients without teeth.
Clinical denture problems may be related to the loss of alveolar bone after tooth extraction. Dental implants have also been reported to maintain alveolar bone volume in addition to providing increased retention and support for prosthetics (Jemt2008). Intraosseous implants are thought to maintain bone width and height as long as the implant remains fixed to the bone with healthy biological deposits (Zarb & Schmidt 1996).

Historical perspective
Two of the objectives related to definitive implant prosthetics treatment were the design and fabrication of a precisely fitted and strong metal framework for attaching multiple implants, and the framework also served as the basis for holding long-term

fixed implant prosthetics. Over the years, multiple and diverse methods have been used to design and manufacture the framework of implants.

Clinical features of the mandibular fixation hybrid prosthesis about 13 years after insertion. Beware of extreme wear/wear of artificial teeth; the patient's right implant framework was secondarily exposed to occlusal wear.Metal implants can be accompanied by serious complications due to the release of wear particles from the implanted material, despite the many benefits of artificial metal wear particles within the hip joint probably cause a durable inflammatory response of bone destruction that is preceded by the loosening of the implant Local host defense machine to better characterize this inflammatory response, bone Inflammatory and osteoclast-induced cytokines, as was systemic T cell activation to link inflammation to the degradation of In modern dentistry, there is a tendency to replace the technology of wax modeling and metal casting with the technology of grinding the metal frame of the prosthesis from the factory block.[1, 3, 6, 7]. In addition, the design of metal-free prostheses is actively introduced, which are mainly manufactured using 2 technologies: press and CAD/CAM milling [2,4,5]. Comparative studies of the clinical effectiveness of these fixed prosthesis designs are relevant. The purpose of the study is to conduct a comparative analysis of the results of non–removable prosthetics using modern structural materials: metal ceramics on crushed and cast chromium-cobalt frames, pressed ceramics, ceramics on zirconium oxide frames. Materials and methods of study Comparison of the state of the gums with artificial crowns around fixed prostheses made of materials: –Group I–Metal–ceramic crowns (61) and bridge-shaped prostheses (including 42, 119 crowns) on cast frames made of chromium-cobalt alloy-22 people; –Group II–Metal-ceramic crowns (30) and briquettes (including 14, 37 crowns) on the grinding frame made of chromium–cobalt alloy-25 people; –Group III–Ceramic crowns made of press ceramics (69)-20 people.; - Group IV - ceramic crowns (65) and bridges on a crushed framework made of zirconium oxide (58, they have 169 crowns) - 34 people. In addition, groups Ia, IIa, IIIa, IVa were formed, which included patients with crowns on dental titanium implants.Ia-19 people, 48 metal ceramic crowns on chromium-cobalt casting frame; IIa–14 people, 26 metal ceramic crowns on chromium-cobalt grinding frame; IIIa–11 people, 27 ceramic crowns made of pressed ceramics; IVa–22 people, 2 metal ceramic crowns on oxide-zirconium grinding frame 60 pieces ceramic crown. Criteria for the USHPS (Ryge) system were used to evaluate the condition of the artificial crown (Z.V.Razumnaya, 2012). Subjective feelings of the patient, cementation, replacement of prostheses were added to the criteria. Among hygiene and periodontal index used: Oral Hygiene Index J.C.Green J.R.Vermillion (OHI-S); parma revision papillary-

marginal-alveolar index (PMA); gingivitis index (GI)H.loe, J.Silness. The results of the study and their arguments According to the data of a 3-year analysis of the state of artificial crowns and surrounding tissues in supporting teeth and implants, different indicators of the effectiveness of metal-ceramic and metal-free ceramic crowns were revealed. The number of complications averaged by the criteria studied at degree "C" proved the advantages of ceramic crowns on zirconium oxide frames (3.6%) and metal-ceramic crowns on crushed chromium-cobalt (3.8%) and crowns made of pressed ceramics (4.3%). There was no difference between the crowns in the degree and shape of the change in the occlusion and the approximate contact. Metal-ceramic crowns on the cast frame had the worst indicators of marginal conformity (10.0%), the state of marginal gums (7.2%), the development of secondary caries (3.9%), cementosis (6.1%) and subjective manifestations of toxic allergic phenomena (1.7%), as a result, the number of crowns replaced for 3 years (5.6%). Complications in prosthetics with metal-ceramic crowns on a chromium-cobalt frame, crushed according to the described criteria, were less frequent, on average 20.9%. The ceramic crown on the zirconium oxide frame is close to the metal ceramic on the frame, crushed by all standards and exceeds the quality of the latter in terms of edge fit, gum state, subjective sensations and frequency of changes.When fixing crowns of different designs on the implant, the patterns revealed during fixation to the tooth in the ratio of complications in the condition of the crown and adjacent soft tissues are preserved. Crown chips are found 46.7% more in implants, mainly due to violations of obstructive contact, and subjective negative symptoms (5.3%). At the same time, the crown of the implant has a better edge fit (38.4%), approximate contact (28.4%), the state of the surrounding gum (47.9%) and frequent cementing of the crown (31.5%). In general, despite the frequent replacement of the crown of the implant (15.7% compared to the tooth), the average rate of complications of the crown of the implant is 21.2%.%

Conclusion: Therefore, According to clinical and functional examination, in the long term of operation, the cast chrome-cobalt frame metal-ceramic crowns are inferior in quality and condition to metal-free ceramic crowns and metal ceramics in milled frames when supported by both teeth and implants.

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