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SOME RECOMMENDATIONS FOR IMPROVEMENT OF DENTAL TRAINING FOR DENTAL IMPLANTATION FOR THE PREVENTION OF POST-OPERATIVE COMPLICATIONS

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Abstract

The article substantiates the necessity of improving the system of dentists' training system for dental implantation (DI). The authors from the position of 30-year practical experience in performing surgical interventions and prosthetics for this section of dentistry, as well as pedagogical activity of postgraduate education of dentists, presents the results analysis of the causes of postoperative complications in DI among young specialists, on the basis of which he justifies the directions for improving of training in dental implantation.

Keywords: *postgraduate education, thematic improvement, dental implantation, prevention of complications.*

Introduction

Actuality of theme. It is known that the problem of improving the education of dentists in the Ukraine is long overdue and timely. In our opinion, the problem of training specialists in dental implantation, the need to limit the range of implant services to novice dentists in complex clinical cases involving errors and unsuccessful treatment deserves special attention in education reform. Also, today relevant aspects of practical training of dentists in the features of the surgical and orthopedic stages of DI [2, 5]. In this regard, the purpose of our report is to substantiate the correction of the system of improvement of dentists with DI with an emphasis on the prevention of postoperative complications.

Presentation of the main research material. Analysis of modern publications shows an increase in the number of complications in the postoperative period during DI process, especially in atrophy of the jaw, accompanied by bone deficiency, the activity of destructive processes in periodontal tissues, which are associated with structural and functional disorders of the skeletal system [1, 4, 5]. Our own observations, as well as analysis of the reasons for patients to seek emergency care in the hospital, show that the most common complications after surgery in DI are observed in the form of reimplants and their complicated forms, which account for about 5-35% of all postoperative complications. Ineffective treatment leads to 60% of cases of loosening of intraosseous dental implants with their subsequent rejection, especially if there is a deterioration in the quality of the jaw bone due to osteopenia or osteoporosis, in combination with atrophy of the alveolar processes of the jaws. Obtaining a negative result of implantation and prosthetics is often the basis for the development of conflict between doctor and patient.

An important reason for implant rejection in the first months after their introduction is the situation when a young specialist due to lack of knowledge and experience in diagnosing clinical conditions for implantation, as well as for economic reasons, combines the stages of implantation of a screw implant, osteoplastic material and prosthetics immediately after removal. tooth. With such "accelerated" implantation, especially when the clinical situation is complicated by periodontal disease, in 35-48% of cases there is an inflammatory process around the implant, which inevitably leads to one or another complication. According to our observations, the most predictable and high-quality treatment option for this pathology is the manufacture of a temporary removable cosmetic prosthesis for maximum aesthetic and functional restoration of the dentition during complete healing of the bone wound and delayed implantation.

Theoccurrence and frequency of various complications in patients are often the result of weak theoretical and practical postgraduate training of young specialists in surgical and orthopedic aspects of DI in the state system of improvement. Unfortunately, this link is filled by various narrowly focused workshops, which are held under the auspices of commercial firms on the basis of private offices or clinics. Accordingly, during such master classes the products of individual manufacturers are advertised, in which, according to a survey of young doctors, more than 80% of the program time is studied only methods of intraosseous implants root-shaped, which leads to a sharp reduction in the arsenal of known methods of DI. Such narrowly focused training of specialists in DI does not allow them to focus on the possibility of using other methods of implantation, impoverishing the choice for themselves and for their patients. This situation, to a large extent, determines the frequency of complications, when obtaining additional supports with intraosseous screw implants is difficult or impossible due to the lack of bone tissue of the alveolar processes. In these cases, the effectiveness and rationality of the use of bone augmentation techniques for the possibility of implantation screw structures is contradictory and sometimes erroneous, as it is associated not only with adverse clinical conditions but also with additional surgery, a long period of time for bone formation, which is inevitable leads to an expensive treatment. Often patients refuse the proposed preparatory surgery, implantation delay for permanent prosthetics. This "imposition" by companies producing screw implants, explains the lack of study of the application of other DI techniques for complicated clinical situations, creates a significant problem in

choosing and planning the most predictable and functional method of repairing dentition defects, unnecessarily increases the patient's financial costs and makes its not always appropriate and biologically safe [2,5]. The presence of the above shortcomings in the tactics of dentists with DI is evidenced by the treatment of patients dissatisfied with the quality and cost of implant treatment. Conflict of interest is obvious: on the one hand, there is a desire of the surgeon to install as many screw structures as possible to achieve their financial success, and on the other hand, up to 80% of patients did not consider implantation to be the purpose of their visit, but to obtain a "beautiful and permanent" denture instead of a lost one. This irrational tactics of the young specialist indicates the need for in-depth consideration of the "forgotten" classic standard - mutual adoption of the treatment plan with the patient: understanding the end result of treatment, discussing the features of permanent prosthetics with an orthopedist and on the basis of all components. and timing of treatment. The current situation shows that in the current state of dental education, insufficient attention is paid to the issues of DI planning and their more detailed consideration is needed, both at the stage of undergraduate and postgraduate education.

The need to improve the training of specialists in DI is also evidenced by survey data, which found that during the postgraduate education programme up to 80% dentists had a superficial idea of alternative methods of dental implants and were wary of using other types of implants in their practice except screw implants. More than 90% of doctors are convinced of the "easy" installation of screw structures, while 10% of them have only superficial representation about the "difficulty of using other techniques." In particular, the need to achieve significant accuracy of bone bed formation when installing an intraosseous lamellar implant under "tension", and errors in prosthetics - the appearance of such complications as the area of "metal fatigue" in the neck of the implant and its fracture due to horizontal loads during chewing. More than 95% of domestic implantologists do not use subperiosteal implantation (SPI) in their practice, due to the complex connection of surgical and orthopedic skills, the need to prevention methods in order to prevent eruption of implant branches through the mucous membrane of the alveoli and more [3].

Unfortunately, for DI in atrophy jaw bone, the problem is that many foreign dental companies do not promote intraosseous lamellar or basal constructions of implants, and SPI techniques, in their opinion, do not correspond to advanced technologies. Our 30-year experience in the use of STI shows the opposite: with a significant violation of the quantitative - qualitative state of bone tissue of the jaw, as well as ineffective use of intraosseous implantation and augmentation methods, the use of STI, on average, in 85-90% of cases creates conditions for permanent prosthetics. The uniqueness and success of subperiosteal implants is due to the fact that they are made individually for each clinical situation, the design of which is modeled by a dentist and technicians cast them from vitalium or titanium. Therefore, these implants may be more accessible for manufacture and use in both commercial and budgetary institutions, which significantly expands the scope of dental care, both for vulnerable groups and for the rehabilitation of servicemen with injuries of the maxillofacial area. Experience of more than 3,500 operations with completed STI shows that this technique is not inferior to its intraosseous efficiency and for 20-25 years, demonstrates an average of up to 65-70% reliability of subperiosteal structures of implants, which can withstand, if necessary, several modifications of "used" orthopedic prostheses.

Given the above arguments, we are convinced that the basic training of dentists in DI in Ukraine requires in-depth consideration of diagnostics of relevant conditions for DI, a list of recommended range of modern materials (including domestic developments), surgical methods of osteoplasty and periodontal surgery, features of fixed prosthetics on intraosseous, basal, subperiosteal implants.

Conclusions

1. Analysis and assessment of complications of postoperative interventions for dental implantation indicates the need to improve the training of doctors in Ukraine at both undergraduate and postgraduate levels of education.

2. The priority of training dentists in dental implantation should remain with the state medical institutions of postgraduate education to obtain a concrete result of practical skills and economic accessibility for doctors of our country.

3. The result of improving the postgraduate education of dentists is the creation of an in-depth cycle of thematic improvement in dental implantation, which is based on 30 years of practical experience and qualified training of teachers, both in surgical and orthopedic aspects of dentistry.

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