ORTHOPEDIC TREATMENT OF PATIENTS WITH OSTEOPOROSIS IN DENTISTRY

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Abstract: *In the process of modern development of Medicine, the problem of osteoporosis is studied in every possible way and research is carried out in different directions. Osteoporosis is a condition in which the density and quality of bone tissue decreases, bone weakness is particularly common among women and the elderly, requiring various treatment approaches. This disease is also one of the most significant problems in the field of Dentistry, in addition to being dangerous to general health. Special approaches are required in orthopedic dental treatment, especially for patients with osteoporosis.*

Keywords: *osteoporosis, orthopedic treatment, dentistry, bone density, prosthetics, jaw bones, modern technologies, prosthetic materials, oral hygiene, diagnostics.*

As a result of osteoporosis, the density of both bones in the jaw and face area decreases, the height of the alveolar tumor decreases, microsochemical changes in bone tissue occur, which also negatively affect the results of orthopedic treatment. One of the main problems of patients with osteoporosis in orthopedic dentistry is the specific condition of bone and soft tissues during prosthetics. In particular, insufficient bone density in areas where the prosthesis rests limits strength and functional stability. In the treatment of such patients,

clinical examination, X-ray radiodiagnostics, laboratory tests and general medical prediction are used. In patients with reduced bone density, each stage of treatment requires special care and a scientifically substantiated approach. In the treatment of osteoporosis patients in orthopedic dentistry, first of all, their overall health, especially the condition of bone tissue, is fully assessed. From this, optimal plans are drawn up for prosthetics, modern technologies are used. For patients with such a severe condition, it is necessary to carefully select each type of prosthesis, their construction, materials and approach. An individual treatment plan is developed for each patient. Especially when choosing portable and partially portable prostheses, the density of the jaw bones, the height and width of the alveolar tumor, the condition of the soft tissues are taken into account. Modern lightweight and biocompatible materials such as metal-plastic, acrylic and polymers are widely used to reduce the weight of prosthetic structures, reduce stress effects, evenly distribute the load on the oral cavity [1].

For such patients, orthopedic treatment will have to strictly follow the specific clinical and technological requirements. Prostheses are made in such a way as to put minimal pressure on the patient's jaw bones and tissues. Each prosthesis is guaranteed microscopic accuracy and high quality in technical processing. In cases of insufficient bone density, although the implantation method is difficult to use, it will be possible to restore the functionality and aesthetics of the oral area with the help of bone regenerators with special technologies. For patients with osteoporosis, the preparation of complete or partial prostheses is also important, as well as the patient's oral hygiene, rational nutrition, and their approach to the treatment process. In medical practice, it is known that patients with osteoporosis have reduced regenerative capacity in the jaw bones, wounds and operational scars end slowly, and before and after the preparation of the prosthesis, of course, filling therapy with drugs and

microelements (calcium, vitamin D, phosphorus) is carried out. Physiotherapeutic methods of assistance, stimulants, daily hygienic control are enhanced to restore metabolic and trophic processes in the oral cavity. In modern dentistry, in the process of prosthetic preparation, there is also widespread use of electrical pulse recorders, 3D modeling technologies, digital scanners, and increased productivity [2].

In dental practice, it is also worth noting that effective and long-term orthopedic treatment in patients with osteoporosis largely depends on initial clinical evaluation, proper diagnosis, pharmacotherapy, and structural solutions performed on individual Lexies. When choosing prosthetic designs for such patients, it is advisable to use lightweight and elastic materials, small contact areas (minimum fulcrum points), and unconventional designs (for example, microprostheses, mini-implants). This reduces the pressure effect on the bone area, helping to prevent other complications. The use of the capabilities of modern medical technologies, which are considered an advanced state in the field of Dentistry, can bring the quality of orthopedic treatment to a high level. Successful treatment of osteoporosis patients with advanced laser technologies, bone regenerators and bioimplants is underway. In such approaches, dentists-prostheses, therapists, surgeons and general doctors always work in cooperation. Interactive consultations, multi-stage diagnostics and careful selection of modern materials are the reasons for finding an accurate technological solution at each stage. In addition, the effectiveness of dietary therapy, vitamin and mineral complexes, constant medical supervision and training in a healthy lifestyle is also considered high at the stage of treatment for patients with severe orthopedic disease and at the same time with osteoporosis. Thorough oral hygiene, timely and regular dental examinations, proper maintenance of prosthetic care, compliance with Doctor's instructions

during the period of adaptation to prostheses will lead to an improvement in the general condition of the patient. For such patients, it is important to carry out preventive recommendations, pre-and post-orthopedic care measures, the correct choice of drugs, the formation of optimal treatment regimes, constant technical control and timely replacement of prostheses [3].

To achieve a successful result in the treatment of patients with osteoporosis in dentistry, advanced scientific experience, modern stages of diagnostics, qualitative Clinical Methods, a team of highly qualified doctors and an individual approach play an important role. Modern surgical methods and new reconstruction technologies, physiotherapeutic applications and pharmacological aids are important for such patients. The structure of bone and soft tissues in the oral cavity, their condition and regenerative capacity, the choice of a prosthetic structure according to the diagnosis of each patient guarantees an effective result. During the treatment process, special attention is paid to the consumption and metabolism of bone tissue. In each clinical case, bone density and morphological characteristics can be determined using special X-ray examinations, tomographic analyzes. Before starting preparation for prosthetics, it is necessary to have a clear idea of oral-diagnosis, bone microarchitecture analysis, tissue reaction indicators. Patients ' biting behavior, load dynamics of the oral cavity, patient fitness of the prosthesis, and aesthetic characteristics are also analyzed. All this is due to the modern requirements of advanced orthopedic dental treatment [4].

In dental practice, the possibility of treating patients with osteoporosis with full or partial mobile prostheses, special prostheses with robust suspenders or modern mini-implants is expanding today. When choosing materials, of course, mutual and biocompatible, hippoallergenic, physiological loads are tried on the basis of regulatory technologies. The individual age of patients, the

severity of the underlying disease, and comorbidities - diseases of the cardiovascular, endocrine, and metabolic systems - are also taken into account. A multi-stage approach to orthopedic dental treatment is accompanied by a correct individual plan, regular monitoring and modern technical support, pharmacological application. It is very important in this regard to the continuous consultation of dentists and doctors, to act in harmony of the doctors, the medical team, who control the general condition of the patient. Mutual friendly, trusting and close cooperation, modern information technologies for all stages of dental care, analysis and information exchange, ultimately serve to ensure the quality and comprehensive health of the patient [5].

Conclusion:

In the orthopedic dental treatment of patients with osteoporosis, a deep and complex clinical approach, diagnostics and treatment methods based on advanced modern technologies occupy a key place. In such a disease, the correct prosthetics in the oral and dental area, the selection of solid materials, modern prosthetic technologies, proper monitoring at each stage, treatment and preventive measures will improve the quality of life of patients, and a positive effect of orthopedic treatment will be obtained. Identification of the disease in the early stages, the creation of an individual prosthetic plan, constant medical supervision, care and attention to oral hygiene are modern achievements of orthopedic dentistry. In this way, the treatment of patients with osteoporosis in modern methods in the dental practice of our country is one of the most important and relevant issues of the industry, in which highly qualified doctors and modern scientific technologies play an important role.

REFERENCES:

1. Abdullaev, S., Akhmedova, L. (2020). "Current approaches to orthopedic treatment in dental patients with osteoporosis." Dentistry and Maxillofacial Surgery, 5(2), 55-58.

2. Abdurakhmanova, G.S., Karimova, D.T. (2021). "Features of prosthetic treatment of patients with osteoporosis in modern dentistry." Uzbek Medical Journal, 9(4), 72-75.

3. Axmedov, B.B. (2019). "Prosthetic rehabilitation of patients with osteoporosis." Medline Uz, 14(1), 21-27.

4. Bobonazarov, R. (2022). "Efficiency of orthopedic dental treatment for osteoporosis patients." Journal of Scientific Articles ‘Health and Education Today’, 1(18), 101-105.

5. Islomova, D.A. (2021). "Implant prosthetics in patients with osteoporosis: clinical experience." Modern Stomatology, 8(3), 66-70.

6. Kadirova, M.K., Ergashev, O. (2018). "Individual prosthetics for osteoporotic patients in dental practice." Practical Medicine, 6(2), 13-18.

7. Khodjayeva, N.Kh. (2019). "Innovative materials in prosthetics of dental patients with osteoporosis." Stomatology Science, 12(3), 34-39.

8. Norqulov, M.Q., Saidova, R.R. (2020). "Main complications of prosthetic treatment in osteoporosis patients." Dentistry of Uzbekistan, 4(2), 45-49.