

Features Of Periodontal Care For Patients Living In Rural Areas.

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Abstract: *The rural population, in comparison with the urban population, has even fewer opportunities to receive dental care, since dental institutions, where the most qualified personnel and the latest equipment are concentrated, are located mainly in cities. Diversity of geographical and economic conditions of rural population, state of communications, accessibility of transport, etc. they aggravate the inequality of residents of different localities in the possibilities of obtaining dental care, so the specifics of the forms and methods of its provision in rural areas is primarily in the approximation of General dental care to the entire rural population.*

Key words: *rehabilitation; in rural areas; dental implants.*

Summary: The article presents an analysis of domestic and foreign publications that analyze the organization of periodontal care for rural residents in different regions. Data on the quality and availability of dental care, risk factors for oral diseases are considered

1. INTRODUCTION

The problem of organizing dental outpatient care for rural residents is quite complex and multifaceted. The principles of dental care are the same for both urban and rural populations. But providing the rural population with dental care depends on their working and living conditions, low density of settlement, distance from the place of residence to specialized care centers, poor quality of roads, irregular transport links. Monitoring of the state of dental care in the country shows that the need of the rural population for this type of medical care is high [1,2]. The level of prevalence and intensity of periodontal diseases among the population is influenced by many factors, such as age, gender, place and living conditions, social environment, dental care, as evidenced by numerous works of the authors [3,4].

The relevance of our research lies in the fact that at present, the attention of specialists to the health and quality of life of older people has significantly increased, due to demographic trends, an increase in life expectancy and, as a result, the number of elderly and senile people in developed countries. Despite the high quality and success of modern dentistry, it can be expected that the General population is not expected to reduce the incidence and prevalence of complete absence of teeth [5,6], which leads to the conclusion that in the near future it is expected to increase the total number of patients who need prosthetics of toothless jaws. Traditional removable dentures no longer satisfy elderly and senile patients. This leads to the fact that it makes them feel their inferiority in the socio-psychological status, which in this aspect significantly reduces the level of quality of life. It is necessary to know that more and more elderly people are able to work, this leads to an improvement in their economic condition, as well as to high aesthetic and functional requirements for orthopedic structures.

Thus, the issues of gerontology in modern dentistry are becoming increasingly important [7,8]. In recent years, the possibilities of dental implantation in elderly and senile people have increased significantly. However, to date, the indications and features of dental prosthetics based on dental implants in the management of elderly and senile patients with complete absence of teeth remain unresolved issues [9]. The technique of prosthetics of the toothless upper jaw using dental implants allows the implantologist to solve the most important task-to normalize the function of the dentoalveolar system by stabilizing the implant and the prostheses attached to it. The installation of a large number of implants in the complete absence of teeth for prosthetics using fixed structures is often difficult due to the fact that the elderly have severely atrophied alveolar processes, a low hygienic indicator after the installation of fixed structures, which leads to the formation of a gap between the implants and the gum. Often there are reasons for installing a small number of implants to fix removable prostheses, partially based on the mucous membrane and underlying bone tissue. The use of these structures significantly expands the possibilities of successful treatment of patients with uneven atrophy, insufficient amount of bone in the lateral areas, unfavorable inter-jaw ratio, and contraindications to bone grafting [10]. It should be assumed that the use of dental implants in elderly and senile patients will be the most rational method of their aesthetic and functional rehabilitation. However, the issues of dental implantation in gerontology have not yet found a worthy reflection. In the development of scientific fields of dental implantation it is necessary to pay special attention to the adequate building of algorithm of treatment tactics and developing a comprehensive methodological approach to the functional and aesthetic rehabilitation of patients of elderly and senile age with complete absence of teeth, which can reduce the risks of complications and adverse outcomes and to promote adequate dental prosthetics and improve the quality of life of older age groups [11,12].

At the same time, there are still unresolved questions about the change in the quality of life and chewing ability of toothless patients during prosthetics with various covering prostheses of the upper jaw based on dental implants, as well as the impact of these structures on the dynamics of implant stability. In our study, we pursue the same goals as: improving the effectiveness of dental, surgical and implantological treatment of patients with complete loss of teeth in the upper jaw using the method of dental implantation, as well as improving the quality of further use of removable structures in the elderly in rural areas.

1.1 objectives of the study

1. optimize the stages of surgical treatment of patients of the older age group with complete absence of upper jaw teeth in the manufacture of removable cover structures supported by implants.
2. to study the stability of implants in a comparative aspect by the method of resonant frequency analysis immediately after the application of various cover removable prostheses and after 1 year of use.
3. to give a comparative assessment of the chewing ability of patients of the older age group with complete absence of teeth when using various designs of cover removable dentures of the upper jaw with support for implants.
4. to evaluate the results of surgical treatment of two groups of patients with complete absence of teeth using two different removable cover structures based on dental implants, using a questionnaire.
5. to propose an optimal design of a removable upper jaw cover prosthesis based on intraosseous implants for older age groups with complete absence of teeth from the position of long-term effect.

2. MATERIALS and METHODS

for diagnosis the following studies were conducted:

1. Clinical examination of the patients.
2. Radiological examination.
3. Ultrasound examination.
4. Statistical methods of processing the results of the study.

3. RESULTS

The experiment involved 35 patients, including 20 men and 15 women in the age group from 55 to 75 years. These patients were divided into 2 groups of 17 people. There were several criteria by which the patient's condition was assessed. We used implants from Mega'gen Anyridge companies. Basically, we worked on the methods "all in 4" and "all in 6" [13,14]. The quality of life becomes more significant if the training period is extended to a year, since most rejection of osteointegrated implants occurs in the first 3 months after the start of the load. When prosthetics of the toothless upper jaw with removable dentures on dental implants, the main focus of work is planning, manufacturing technologies, determining the term and durability of the use of a particular design. Only a few studies highlight patients' post-treatment opinions and changes in their quality of life. The comparative characteristic of our studies was to compare changes in the assessment of the quality of life of the same patient who used complete dentures for at least a year, who was fitted with implants and made a cover prosthesis with support for implants according to two protocols of treatment of the toothless upper jaw with cover dentures with support for dental implants. Subsequently, the dynamics of assessing the quality of life of these patients during the first year was monitored. As well as a long-term and thorough assessment of patient satisfaction and changes that occurred after prosthetics, dental health associated with quality of life according to both rehabilitation protocols for patients with removable dentures based on dental implants [15,16].

Consider the two study groups that show the greatest changes in the assessment of quality of life occurring in the first month of prosthetic use-58% in the first group and 77% in the second group, respectively. During the year, patient satisfaction in both groups continued to grow and achieved results of 25.3 ± 2.7 points for the first group and 15.5 ± 7.1 points for the second. the second group of patients. Although in the 1st month of prosthesis use, the lowest score was in a subgroup of patients over 70 years of age, but by the 1st year of use in patients of this subgroup, changes in the level of quality of life increased. This consequence suggests that older people often spend more time adapting to the prosthesis. The high dynamics of changes in the quality of life of patients in all age subgroups in the manufacture of curved dentures on dental implants indicates a greater physiology of the bone tissue of these prostheses and the absence of a period of "habituation" [17].

The current sample size was relatively small, so the data should be interpreted with caution. Nevertheless, the study group (35 patients) was homogeneous due to clear inclusion-exclusion criteria and the formulation of the study model before and after treatment, as well as in the dynamics of application.

The results of this study indicate the benefits of dental implant treatment for elderly patients with complete absence of upper jaw teeth. An excellent motivating tool in the hands of a doctor is to inform patients about how dental implant treatment can improve their chewing function and quality of life both in the near future and in the long term [18]. The high clinical success rate, significant improvement in chewing and quality of life reported in this clinical study is a contribution to the growing evidence that the use of implants as supports for

removable dentures is the optimal way to replace the toothless upper jaw. However, long-term follow-up studies are needed to confirm these initial positive results.

4. CONCLUSIONS

As the results of our studies have shown, all 2 groups of drugs are similar in their qualities and parameters.

1. the developed technique of clinical and radiological planning of implantation allows you to accurately transfer the necessary data to the surgical area, which simplifies the operation procedure and reduces the risk of possible complications.

2. the high level of stability of implants (85.8 ± 2.5 XI) installed in the interdental area in elderly patients with complete absence of teeth does not decrease after the first year of use, regardless of the type of superstructure (beams or locators) and the number of implants.

3. the stability Values of dental implants do not correlate with the age of patients in the older age group (50-75 years), which indicates that age cannot be a criterion when deciding on the use of dental implantation in elderly and senile patients.

4. in patients of older age group with complete absence of teeth in the transition from prosthesis of the upper jaw traditional full dentures for prosthetics epithelial prostheses based on implants improve chewing function is faster in the manufacture of prostheses on the basis of a beam with rigid fixation of the lock which is characterized by a large decrease in the average diameter of ground particles (25.6 per cent) by the end of 1 month than patients using prostheses on the keypad terminals (12,3%), ($P < 0.05$). However, after 1 year of application, the grinding parameters of the test material are equalized at the level of 25-28% and the difference in the quality of chewing in both groups of patients becomes statistically unreliable ($P > 0.05$).

5. the use of implants as additional supports for removable dentures in the complete absence of teeth in patients of the older age group has a positive effect on the quality of life of patients. At the same time, after 1 month of use, the level of quality of life significantly increases in the group with beam prostheses (75%) than in the group with push-button prostheses (35%), ($p < 0.05$), after 1 year of use, the indicators are aligned (88.5% and 65.4%), but remain higher when using a beam structure ($P < 0.05$).

6. there is no correlation between the data obtained using objective (chewing ability) and subjective (questionnaire) assessment methods when using dental prostheses based on implants, regardless of the type of suprastructure and the number of implants used. With a General tendency to improve in both groups of patients for both types of assessment ($P < 0.05$). This indicates a multi-factor criteria for determining the level of dental care, the understanding of which lies beyond the usual clinical methods.

5. REFERENCES

- [1] Alimsky AB. Providing orthopedic dental help to elderly patients with complete absence of teeth. *Dentistry for All*. 2010;1:31-32.
- [2] Voronov AP, Voronov IA, Voronov DA. Ways to improve adaptation to plate prostheses in the complete absence of teeth. *Maestro of Dentistry*. 2013;30:40-41.
- [3] Alimskii BA, Beletsky VG, Kartsev AA, etc. Motivational speaker and features of appealability of the population for orthopedic assistance in ZNIIS. *Economics and Management in Dentistry*. 2014;1(12):56-61.

- [5] Gilmanova NS. Adaptation to full removable prostheses of middle-aged persons depending on their psycho-emotional status: abstract. Diss. Cand. honey. Sciences'. M. 2010;25.
- [6] Alimsky AB, Vusatyi BC, Prikuls VF. On the issue of providing orthopedic dental care to elderly people with complete absence of teeth living in Moscow and the Moscow Region. Dentistry. 2014;83(4):72.
- [7] Davarpanah M, Szmurkler-moncle S. Unconventional implant treatment: I, implant placement in contact with ankylosed root fragments. Clin Oral Implants Res; 2009.
- [8] Arutyunov SD, Molchanov AC, Filyuk A, Ya solovykh EA. Facial Expression as an indicator of the emotional state of patients at a dental appointment. Russian Dental Journal. 2013; 1:24-28.
- [9] Lang NP, Berglundh T. Periimplant diseases. J Clin Periodontol; 2011.
- [10] Barer GM. The use of dental measurements of quality of life. Text. / Barer GM, Gurevich KG, Smirnyagina VV, Fabrikant EG. Stomatology for All. 2016;2:4-7.
- [11] Renouard F, Nisand D. Impact of implant length and diameter on survival rates. Clin Oral Implants Res; 2006.
- [12] Alsaadi G, Quirynen M, Komarek A, Van Steenberghe D. Impact of local and systemic factors on the incidence of late oral implant loss. Clinical Oral Implants Research. 2015; 19(7):670-676.
- [13] Voronov AP, Lebedenko I. Yu, Voronov IA. Orthopedic treatment of patients with complete absence of teeth. Tutorial. M. 2012;317.
- [14] Shashmurina VR. Mechanisms of adaptation of patients to prostheses based on implants in the complete absence of teeth on the lower jaw. Diss. Doctor. Honey. Sciences'. Moscow. 2016;256C.
- [15] Paraskevich VL. Development of a system of dental implants for rehabilitation of patients with complete absence of teeth: autoref. Diss. Doctor. Honey. Sciences', Moscow. 2017;46.
- [16] Mosolov DV. Peculiarities of medical tactics at rendering of the stomatologic help to patients of elderly and senile age depending on reactance of vegetative nervous system: Author. dis. Cand. honey. sciences'. Moscow. 2016;24.
- [17] Paulo Malo etc. Short implant placed one stage in maxillae and mandibles Clin Implant Dent Relat Res; 2007.
- [18] Vuraki NK. Improving the effectiveness of orthopedic treatment of senile patients with complete absence of teeth: abstract. Cand. Honey. Sciences'. Moscow. 2011;24.
- [19] Barannikov AC, Leanna SA. Prosthesis with complete loss of teeth supported by endosseous implants. Modern Stomatology. 2015;6:42-44.