



## ASSESSMENT OF CHANGES IN THE QUALITY OF LIFE OF PATIENTS WITH DENTITION DEFECTS BEFORE AND AFTER PROSTHETICS AND DENTAL IMPLANTATION USING AN IMPLANT IMPLANT.UZ

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### ABSTRACT

*The aim of the study was to assess the quality of life of patients with dentition defects, not replaced by orthopedic structures, using bridges and a domestic implant Implant.Uz to analyze dental health related to the quality of life of patients, special tests are used, each of which is designed to assess the degree of influence of dental problems on the functional and socio-psychological state patients. Especially convenient are such short versions of health status measurements as the Oral Health Impact Profile (OHIP-14), which have the advantage of being used in various clinical situations. During the study, patients with dentition defects and periodontal diseases were surveyed using the Oral health Impact Profile-14 (OhIP-14) dental quality of life questionnaire before and after treatment.*

Introduction. According to the definition of the World Health Organization, quality of life is a characteristic of physical, psychological, emotional and social functioning based on its subjective perception. This concept includes individual well-being in the environment - both physical and psychological, work, education, social success, as well as freedom, the possibility of free action, justice and the absence of any oppression [4].

Acquired pathologies of the dental system are found in almost 100% of the population of the Republic of Uzbekistan. The most frequent pathologies include defects of the dentition [1] and periodontal diseases, which are not only the cause of

deterioration in the quality of life and reduced ability to work of patients, but also the cause of a number of somatic diseases and their unfavorable course. Both dentition defects and periodontal diseases are difficult to treat, lead to a significant decrease in the functionality of the dental system, they are characterized by a long period of rehabilitation. Unfortunately, in practice, an isolated course of these pathologies is quite rare, as a rule, they occur in combination, mutually weighing each other down.

In this paper, we have studied 2 two ways of replacing defects of dentition, in particular, the replacement of defects with the installation of a domestic implant Implant.Uz, evaluated their results both



from the point of view of improving the dental status and from the point of view of improving the quality of life of patients.

Materials and methods of research. The study was conducted on the basis of the Tashkent State Dental Institute, as well as in the private dental clinic "L-Dent". 30 patients with dentition defects not replaced by orthopedic structures (15 men and 15 women), aged 25 to 75 years (the average age of patients was 40 years) were examined. The examination was carried out twice: before the treatment and after it. All patients, depending on the method of replacement of dentition defects, were divided into 2 groups: 17 patients underwent prosthetics using fixed orthopedic structures, the remaining 13 underwent dental implantation; all patients also received conservative and, if necessary, surgical treatment of periodontal diseases. The study included examination of patients, determination of dental indices (CFE, PMA, OHI). The quality of life of patients was also determined using the OHIP-14 questionnaire [6], which includes 14 questions that allow assessing the impact of oral health on quality of life, according to the following criteria: daily life, chewing food, ability to communicate. There were 5 possible answers, which range from "very often" to "never" and are rated from 5 to 1 points, respectively [7]. The quality of life of patients was determined before the treatment. A questionnaire was also conducted using the OHIP-14 questionnaire after treatment.

Statistical data processing was carried out using Microsoft Office 2010 and

the Statistica 6.0 program. Statistical analysis of the actual material was carried out by parametric methods, when comparing independent samples, the Student's t-test was used. The results are presented as an average with an indication of the standard error ( $X \pm m$ ). The critical level of significance when testing statistical hypotheses was assumed to be less than 0.05.

Results. In the survey conducted before treatment, patients of the first and second groups complained only about the presence of defects in the dentition and the associated difficulties in communication and eating. Whereas during the examination of the oral cavity in all patients, in addition to defects in the dentition, inflammatory phenomena, swelling of the gingival papillae, gingival hyperemia, pronounced bleeding were noted. The values of the PMA index of the examined patients averaged  $44.5 \pm 2.7\%$ , PI —  $4.67 \pm 0.03$ , teeth had 1-2 degrees of mobility. Supra-gingival and subgingival dental deposits were detected in all patients. The OHI indicators were  $1.78 \pm 0.12$ , which corresponded to a poor state of oral hygiene.

The analysis of questionnaires and questionnaires filled out by patients before treatment showed that according to all criteria of quality of life, with the exception of the ability to communicate, the quality of life of patients with periodontal diseases undergoing dental implantation was significantly worse than that of patients who underwent prosthetics using fixed orthopedic structures (Table 1).

Dependence of patients' quality of life on the method of replacement of dentition defects

Table 1



Patient groups	Criteria		
	everyday life	jawing process	ability to communicate
Patients undergoing prosthetics using fixed orthopedic structures	12,3	6,9	9,2
Patients undergoing dental implantation	15,4	7,6	8,1

Quality of life indicators before and after replacement of dentition defects with bridges

Table 2

Patient groups	Criteria		
	everyday life	jawing process	everyday life
Before treatment	12,3	6,9	9,2
After treatment	8,9	5,4	8,6

Quality of life indicators before and after dental implantation

Table 3

Patient groups	Criteria		
	everyday life	jawing process	everyday life
Before treatment	15,4	7,6	8,1
After treatment	7,8	5,9	6,3

Dependence of patients' quality of life on the method of replacement of dentition defects after treatment

Table 4

Patient groups	Criteria		
	everyday life	jawing process	everyday life
Patients undergoing prosthetics using fixed orthopedic structures	8,9	5,4	8,6
Patients undergoing dental implantation	7,8	5,9	6,3

After the treatment, most patients did not complain. When examining the oral cavity, there was a decrease in hyperemia and swelling of the gums, a decrease in bleeding, the absence of pathological gingival pockets, and an improvement in dental indices was also observed: the values of the PMA index averaged  $24.3 \pm 2.2\%$ , PI —  $1.11 \pm 0.18$ . The OHI indicators

were  $0.87 \pm 0.1$ , which corresponded to a good state of oral hygiene

The analysis of the OHIP-14 questionnaires showed a significant improvement in the quality of life of patients after treatment (Tables 2, 3).

It should also be noted that patients who had dental row defects replaced by implantation noted significantly better



indicators for all quality of life criteria than patients with bridges.

**Conclusion.** Thus, this study showed that such diseases of the oral cavity as dentition defects and periodontal diseases significantly reduce the quality of life of patients, reflecting they affect both the ability to eat and communicate, and the general well-being of people, and should be considered not only as a medical problem, but also as a social one, therefore, much attention should be paid to their elimination and prevention of occurrence. At the same time, it can be seen from our study that different treatment methods have different effects on the quality of life of patients: despite the fact that prosthetics using fixed orthopedic structures significantly improves the quality of life of patients, it is significantly inferior to implantation, in which the quality of life criteria approach those of practically healthy people. Therefore, when choosing a

treatment method, it is necessary not only to proceed from the clinical picture in the oral cavity, but also to take into account many other indicators that can significantly affect the success of the treatment in the future.

Dental implantation is the most effective way to replace dental row defects with concomitant periodontal pathology, allowing patients to lead a full life without experiencing the inconvenience associated with eating and communicating with people. Also, the main advantage of Implant.Uz is a low cost in comparison with foreign analogues, thanks to which the population of Uzbekistan can afford treatment of adentia with implants.

The use of quality of life questionnaires at a dental appointment allows doctors to optimize the choice of therapy method and control the treatment process, which contributes to an increase in the effectiveness of the treatment.

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