

COMPARATIVE EVALUATION OF QUALITY OF THE REMOVABLE DENTURES AT THE STAGES OF THEIR CLINICAL USING

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Abstract. *The purpose of the study was the comparative analysis of the quality of removable dentures at the stages of their clinical using.*

Objects and methods. *Clinical population analysis of immediate, lasting results and clinical / technological evaluation of complication in the treatment of removable dentures is made by surveying a representative population of patients of the dental clinics of Kharkov and Kharkov region. Form of information provision of the study were the results of the expert evaluation which was made according to form 043/o in the 10 hospitals. At the stages of the clinical using of orthopedic constructions (in the early and long-term periods) we made comparative evaluation of the quality of 15652 laminar dentures (partial dentures – 7240; complete dentures – 8412).*

Results and their discussion. *Qualimetric analysis of the clinical using of laminar dentures showed that partial and complete dentures are slightly different according to index of technological quality and frequency of certain signs of its decline depending on the stage of clinical using of the dentures. So, in the early period of clinical using of the laminar dentures are characterized by different levels of technological quality (ITQ: for partial dentures – $(1,2 \pm 0,06)\%$; for complete dentures – $(2,6 \pm 0,1)\%$, $p < 0.001$) and same quality (QI: for partial dentures – $(98,1 \pm 0,5)\%$ and for complete dentures $(98,5 \pm 0,5)\%$, $p > 0.05$), due to the large number of signs of the declining quality of the complete dentures at the same frequency Re-orthopedic treatment.*

So, complete laminar dentures require replacement in the long term not as common as partial dentures. However, the number of manifestations of decline quality of complete dentures is significantly more.

Conclusions.

1. *Developed and implemented a methodology of comparative analysis of quality removable dentures on the clinical stages of using of complete and partial laminar dentures.*

2. *There were proved that laminar dentures are distinguished by index of technological quality and frequency of certain signs of decline quality depending on the stage of clinical using. Thus, according to manifestations of decline quality in the early period partial laminar dentures are characterized by different levels of technological quality ($p < 0.001$) and the same quality ($p > 0.05$), due to the large number of signs of the declining quality of the complete dentures at the same frequency Re-orthopedic treatment. This can be explained by early prosthetics after tooth extraction, high pressure on tissue prosthetic area, which can cause atrophy of alveolar ridge.*

Perspective of further research *in this area are associated with the justification of constructive and auxiliary dental materials and the study of the quality of life of patients on the stages of the clinical using of removable dentures.*

Keywords: *dentistry, design of dental prostheses, quality, monitoring.*

Abstract. *Around 80% of the population in Ukraine need in fixed and removable dentures but the level of satisfaction of the patients in different regions of Ukraine is $22,0 \div 38,0\%$. This fact is a prerequisite for the prevention of complications and improvement reliability, quality and increasing terms of clinical using of dentures [3, 4, 7, 8]. Currently the problems of relationship between prosthetic design, applied constructive and auxiliary materials, the frequency and nature of complications in orthopedic treatment with dentures are not investigated systematically. Clinical and technological debasement of prostheses immediately after orthopedic treatment and in the long-term may be determined by the properties and technological quality of constructive materials, auxiliary materials and dental cement that was used for fixation of orthopedic designs [1, 3, 8].*

The purpose of the study *was the comparative analysis of the quality of removable dentures at the stages of their clinical using.*

Objects and methods. *Clinical - population analysis of immediate, long-term results and clinical - technological evaluation of complication in the treatment with removable dentures is made by surveying a representative population of patients of the dental clinics of Kharkiv and Kharkiv*

region. Form of information provision of the study were the results of the expert evaluation which was made according to form 043/o in the 10 hospitals. On the stages of the clinical using of orthopedic constructions (in the early period and long-term) comparative evaluation of the quality of 15652 laminar dentures (partial dentures – 7240 ; complete dentures – 8412).The absolute and relative indicators, in particular indicator frequencies, for each of the signs of declining quality (in percentages of the total number of this type of prosthetic design ($P\pm m$) %) were calculated for each of the dentures according to certain indicators of the quality . The following indicators were used for comparative evaluation of the quality of removable denture: the index of clinical and technological quality (ITQ - the ratio between the total numbers of signs declining quality of orthopedic constructions to the total number of these constructions) and the index of level quality (QI, % - specific gravity of orthopedic constructions with satisfactory quality). In our research we were used well-known and widely used clinical- statistical and clinical- informative methods: quantitative analysis, expert evaluation; clinical and statistical (variation statistics [2, 5, 6], the probabilistic distribution of the signs with the assessment of the reliability of the results [9].

Results and their discussion. Qualimetric analysis of the clinical using of laminar dentures (tab. 1) have shown the partial and complete dentures are slightly different according to index of technological quality and frequency of certain signs of its decline depending on the stage of clinical using of the dentures. So, in the early period of clinical using the laminar dentures are characterized by different levels of technological quality (ITQ: for partial dentures – $(1,2\pm 0,06)\%$; for complete dentures – $(2,6\pm 0,1)\%$, $p < 0.001$) and same index of level quality (QI: for partial dentures – $(98,1\pm 0,5)\%$ and for complete dentures $(98,5\pm 0,5)\%$, $p > 0.05$) due to the large number of signs of the declining quality of the complete dentures at the same frequency Re-orthopedic treatment. This can be explained by early prosthetics after tooth extraction, high pressure on tissue prosthetic area, which can cause atrophy of alveolar ridge. It may be impact of following factors: the condition of the mucous membrane, the physic-mechanical properties impression material, methods of obtaining functional impression of prosthetic area. In the long term clinical using the partial dentures it was revealed declining ($p < 0.05$) of their technological quality complete dentures more $(1,6\pm 0,1)$ than partial dentures $(1,3\pm 0,1)$. But the declining of index of level quality was on the contrary (QI: for partial dentures – $(46,7\pm 2,0)\%$, for complete dentures – $(58,4\pm 5,5)\%$, $p < 0.05$). So, complete laminar dentures require replacement in the long term not as common as partial dentures. However, the number of manifestations of decline quality of complete dentures is significantly more.

Table 1. Generalized qualimetric indicators at the stages of clinical using of removable dentures

Terms and quality criteria of removable dentures		removable dentures				
		partial	complete	together	p	
Laminar dentures	EPU	abs.	246	410	656	$p > 0,05$
		$P\pm m, \%$	$3,5\pm 0,7$	$5,9\pm 1,4$	$2,8\pm 0,7$	
		ITQ	$1,2\pm 0,06$	$2,6\pm 0,1$	$1,8\pm 0,1$	$p < 0,001$
		QI	$98,1\pm 0,5$	$98,5\pm 0,5$	$98,3\pm 0,5$	$p > 0,05$
	LTU	abs.	6994	8002	14996	$p > 0,05$
		$P\pm m, \%$	$71,3\pm 6,0^a$	$75,9\pm 9,6^a$	$63,7\pm 8,0$	
		ITQ	$1,3\pm 0,1$	$1,6\pm 0,1$	$1,5\pm 0,1$	$p < 0,05$
		QI	$46,7\pm 2,0^a$	$58,4\pm 5,5^a$	$52,8\pm 4,2$	$p < 0,05$

Note: EPU – manifestations of the decline in the quality dentures in the early period of using (up to 24 months), LTU – manifestations of the declining quality of construction in the long-term (more than 24 months), ($P\pm m$) % frequency of signs of reducing the quality of the dentures, ITQ – index clinical and technological quality dentures, ^a – $p \leq 0.05$ in comparison with EPU; QI - level of quality dentures

Conclusions.

1. Developed and implemented a methodology of comparative analysis of quality removable dentures on the clinical stages of using complete and partial laminar dentures.

2. There were proved that laminar dentures are distinguished by index of technological quality and frequency of certain signs of decline quality depending on the stage of clinical using. Thus, in EPU the partial laminar dentures are characterized by different levels of technological quality (ITQ: for partial dentures – $(1,2\pm 0,06)\%$; for complete dentures – $(2,6\pm 0,1)\%$, $p < 0.001$) and same index of level quality (QI: for partial dentures – $(98,1\pm 0,5)\%$ and for complete dentures $(98,5\pm 0,5)\%$, $p > 0.05$), due

to the large number of signs of the declining quality of the complete dentures at the same frequency Re-orthopedic treatment. This can be explained by early prosthetics after tooth extraction, high pressure on tissue prosthetic area, which can cause atrophy of alveolar ridge.

Perspective of further research in this area are associated with the justification of constructive and auxiliary dental materials and the study of the quality of life of patients on the stages of the clinical using of removable dentures.

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MODEL FOR VIDEO ALGORITHM OF INJECTION TECHNIQUES FOR STUDENTS OF MEDICAL SPECIALITIES

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Abstract. The need to establish innovative educational resources in today's university training of health personnel is becoming increasingly apparent. In the content of this publication, we describe the efforts of our professional team of creating a model of video algorithms of different types of injection techniques. The team considers modern psychological and pedagogical profile of current generation of students that requires inclusion of new educational technologies. After hard work of the teaching and students teams, we implement models of video algorithms for five different injection techniques. This model is available in one of the most popular internet sides – Youtube, and the model is suitable to educate various groups of medical student such as nurses or midwives.