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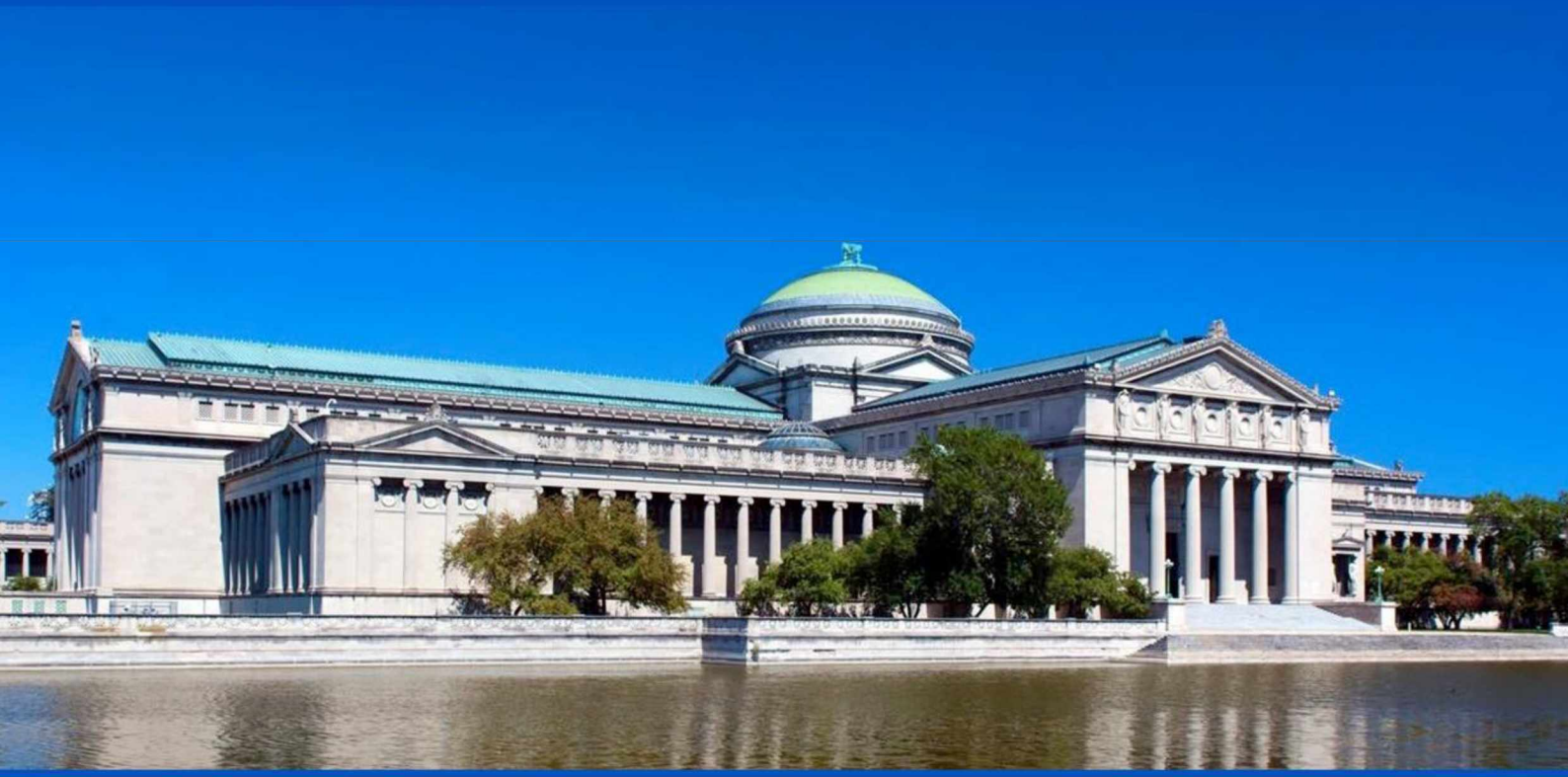

PROCEEDINGS OF IX INTERNATIONAL SCIENTIFIC AND PRACTICAL CONFERENCE MAY 2-4, 2024

CHICAGO 2024

MODERN RESEARCH IN SCIENCE AND EDUCATION

Proceedings of IX International Scientific and Practical Conference

Chicago, USA

2-4 May 2024

Chicago, USA

2024

UDC 001.1

The 9th International scientific and practical conference "Modern research in science and education" (May 2-4, 2024) BoScience Publisher, Chicago, USA. 2024. 874 p.

ISBN 978-1-73981-123-5

The recommended citation for this publication is:

Ivanov I. Analysis of the phaunistic composition of Ukraine // Modern research in science and education. Proceedings of the 9th International scientific and practical conference. BoScience Publisher. Chicago, USA. 2024. Pp. 21-27. URL: https://sci-conf.com.ua/ix-mizhnarodna-naukovo-praktichna-konferentsiya-modern-research-in-science-and-education-2-4-05-2024-chikago-ssha-arhiv/.

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QUALITY OF LIFE OF PATIENTS INDICATORS AND THE IMPACT OF ACRYLIC DENTAL CONSTRUCTIONS ON IMMUNOMETABOLIC PROFILE

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Introduction. When treating with removable orthopedic constructions (ROC), the application of acrylic base materials is relevant for adapting the prosthetic area, restoring chewing function, and overall improving the quality of life for patients during treatment [1]. However, it should be noted that the use of these material groups for ROCs may also negatively impact the condition of the oral mucosa and the adaptation process to ROCs [2]. Of particular importance is the level of residual monomer content, as methyl methacrylate (MMA) is known to be a histotoxic substance; the safe level of residual monomer is determined by the corresponding ISO, and the effect of MMA on the functional state of the oral mucosa epithelium may be indicated by immunometabolic parameters.

Keywords: removable constructions, treatment methodology, residual monomer, immunometabolic profile, vacuum method, quality of life.

The aim of the study was to assess the impact on the immunometabolic profile of patients in the orthopedic dentistry clinic through the use of an improved method

for manufacturing removable dental prosthetic constructions, taking into account quality of life indicators.

Materials and methods. In order to improve manufacturing technologies and patient treatment processes with the use of removable orthopedic constructions, we innovatively addressed the issue of reducing residual monomer in orthopedic constructions by developing a technology for their vacuuming using a system of technical means [3]. The basis of the research in solving our task was the reduction of residual monomer, namely its prolonged extraction by placing the construction in an aqueous environment for a specified period. To shorten the time interval and increase the efficiency of monomer extraction from acrylic dental material, the orthopedic construction was placed in an aqueous environment at a temperature of 60-85°C and under controlled vacuum conditions. The creation of a vacuum was an important aspect as an additional factor in intensifying the process [8]. To ensure vacuuming of dental orthopedic constructions, we developed a complex of tools and devices, the use of which involves the use of a special vacuum chamber and a vacuum creation device, as well as a defined technology for vacuuming orthopedic constructions [4].

Results. When considering statistically significant changes among patients using removable orthopedic constructions, the worst level of quality of life before and after treatment was found in $^{2}N_{2}$, using removable prostheses without vacuuming, with scores of 32.4±0.47 and 92.8±0.35 respectively. Although the indicators changed by 1.27 times in favor of improvement, the final level of quality of life reflected at the IV stage of orthopedic treatment (6 months after treatment) remained the worst among these patients. Prospects for further research on the use of acrylic base materials at the stages of treatment with removable dental prosthetic constructions are related to the study of: the effect of the material of removable orthopedic constructions on the adaptation of the prosthetic bed, the effect of constructional dental-technical material on the quality of life of patients before the end of treatment with removable orthopedic constructions.

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