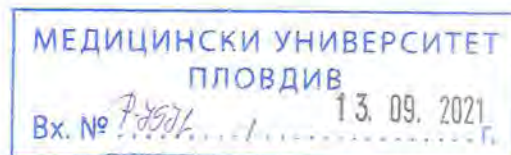


STATEMENT

from



Assoc. Prof. Dr. Ilian Vangelov Hristov, DMD, PhD, Department of Prosthetic Dentistry, FDM - Plovdiv, internal member of the Scientific Jury, elected by a decision of a meeting of the Faculty Council at FDM at MU - Plovdiv under Protocol № 4/17.06.2021 and by order of № P – 1157/13.07.2021 of the Rector of Medical University - Plovdiv, regarding a dissertation on the topic:

Retrospection of the color change of temporary structures in fixed prosthodontics

for awarding the educational and scientific degree "**PhD**" under the doctoral program "Prosthetic dental medicine" in the professional field 7.2. Dental medicine in the field of higher education 7. Health and sports.

PhD student in self-study **Dr. Atanas Vaskov Doshev**, assistant-professor in the Department of Prosthetic Dentistry, FDM, MU - Plovdiv.

Scientific adviser: **Prof. Diyan Slavchev, DMD, PhD**

General presentation of the procedure and the doctoral student

The presented set of materials on paper and electronic media is in accordance with the procedure and regulations for acquisition of ONS "Doctor" of MU - Plovdiv.

Dr. Atanas Vaskov Doshev was born in Plovdiv on August 2, 1990. He completed his secondary education at the Ivan Vazov Elementary School in 2009. In 2016 he graduated MU - Plovdiv with a degree in Dental Medicine. In 2017, after passing a competitive exam, he started working as an assistant-professor in the Department of Prosthetic Dentistry, FDM, MU - Plovdiv, where he still works. His interests are directed to removable and fixed prosthetics, color formation and problems of dental materials science. He has successfully passed the doctoral school at MU - Plovdiv. Fluent in written and spoken: German, Russian and English. Regular member of BDU.

Structure of the dissertation

The dissertation presented to me for review is written on 155 pages, divided into 10 chapters, includes 22 tables, 46 figures and 5 appendices. 230 literature sources are cited, 33 of which in Cyrillic and 197 in Latin.

Relevance of the topic, purpose and tasks

As the title of the dissertation suggests, the author makes a retrospective study of the changes in the color of the temporary structures exposed to the action of different coloring agents. The analysis of changes is based on both in vitro and in vivo studies. Tracking these changes in the conditions of the oral cavity in patients who voluntarily participated in the experiment provides reliable information about the results obtained. The goal and the tasks are correctly and precisely formulated as the obtained data fills the gaps in the previous researches as some of them confirm those made by M. Dimova / 2003 /.

Analysis of the literature review

The literature review covers 46 pages and the types of temporary constructions, chemical nature of the materials and their characteristics are considered in great details. A comparative analysis of the shortcomings of the most commonly used materials for making temporary structures has been made. Special attention is paid to the impact of the polymerization process on the vitality of the retainers. Special attention is paid to modern methods for making temporary structures. Important aspects for the correct determination of the changes in the color of the restorations are related to the processes of color determination and color perception. Of particular importance is what type of luting agent will be used, as well as the influence of certain clinical manipulations such as bleaching and polishing.

Analysis of the set goal and related tasks

After a critical analysis of the literature review, dr Doshev sets clear and precise objective related to retrospectively it study the changes of color temporary restorations. This is imposed by the fact that the last major such study in our

country was conducted almost 20 years ago. To fulfill the main goal of the dissertation, Dr. Doshev sets himself four tasks. The materials and methods used in the research are described in great details.

□ **On the first task:**

The results obtained under the first task show that the majority of DMD in our country make temporary structures for their patients. Statistics show that most are men, without being able to explain this trend. Logically, the highest share falls on the constructions made by the direct method. It is quickly made ex tempore and the patient leaves the office with a finished crown or a bridge. The low percentage of restorations made using CAD-CAM technology is somewhat logical. The method is relatively new, takes more time and requires additional payment by the patient. The best known of the colleagues is the material Protemp, in its two versions. The longer stay of the temporary structures, indicated by DMD / more than two weeks /, is due either to the longer time for making the definitive structure in the dental laboratory, or to the longer time necessary for patients to adapt to the new ones. conditions in the oral cavity. The color A3 is probably the most widely used, both for the final constructions and for the temporary ones. According to the majority of respondents, cement does not affect the change in color of makeshift structures. According to DMD practitioners, all types of temporary structures change color over time, but few correct them or even replace them with new ones.

□ **For the second task:**

The brass matrix created by the author's team by the method of vacuum casting has a unique design and fully meets the needs of the research. Its arcuate shape contributes to the creation of experimental bodies by refracting light rays in a way that most closely resembles natural teeth. Unfortunately, experiments have shown that most of the new technologies (CAD-CAM and 3D printing) are still not applicable for such purposes.

□ **On the third task:**

The big difference in the values of the colors was found when measuring the same sample under the same conditions with the different devices /Spectroshade and Vita Easyshade/. Despite the differences, the trends in color change persist. An

interesting finding is the measurement of a darker color with the devices, as announced on the package by the manufacturer!

□ **On the fourth task:**

A large number of temporary constructions have been made, in which the weaker influence of the colorants in the conditions of the oral cavity has been established, compared to the laboratory conditions. A clinical map has been created in which the information for each patient is systematized. This in turn helps to better analyze the experimental data.

Contributions:

First of the contributions confirms the survey results made by M. Dimova (2003). Four scientific and applied contributions were made, concerning the color changes in the three areas of the tooth - neck, body and cutting edge, as well as in groups of teeth - incisors, canines, premolars and molars . To the contributions with original character are: created by the author team brass matrix and the results of laboratory and clinical studies of the color change with the apparatus Vita Easyshade and Spectro Shade.

Publication activity of the doctoral student

Presented are three full-text publications are presented and three participations in scientific forums based on successfully implemented vatreuniversitetski project №14 / 2018 . As a recommendation, I would note, if possible, dr Doshev to diversify his participation in other scientific forums, not only in those organized by the UScB.

Abstract

The presented abstract contains 60 pages and meets all requirements and reflects the goals, objectives, conclusions and contributions related to the dissertation.

CONCLUSION

The PhD thesis on "**Retrospection of the change of color of temporary structures in fixed prosthodontics**" contains scientific and applied results, representing an original contribution to science and fully meets the requirements of the Law on the Development of Academic Staff in the Republic of Bulgaria / ZRASRB / for application of ZRASRB and the Regulations of MU - Plovdiv.

From the provided material it is clear that the doctoral student has made a detailed and comprehensive analysis of the literary facts. He got acquainted thoroughly with the materials and methods of research. The contributions are significant and with a strong practical application. The dissertation indisputably proves that **Dr. Atanas Vaskov Doshev** has in-depth theoretical knowledge and practical skills in the specialty " Prosthetic Dentistry" by demonstrating qualities and skills for independent research and interpretation of the results.

As a result of the above, I will vote convincingly and categorically "**POSITIVE**" the award of the educational and scientific degree "**PhD**" to **Dr. Atanas Vaskov Doshev** , in the doctoral program " Prosthetic dental medicine" in the professional field 7.2. Dental medicine in the field of higher education 7. Health and sports.

Prepared the opinion:

26.08.2021r.


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