

To the Chairman of the Scientific council,
appointed by order of the
Rector of Medical University - Varna,
№ P-109-174/ 06.06.2024.

REVIEW

**By Assoc. Prof. Dr. Tsvetelina Iliyanova Borisova-Papancheva, DMD, PhD,
Head of Department of Conservative Dentistry and Oral Pathology, Faculty of Dental
Medicine, Medical University "Prof. Dr. Paraskev Stoyanov"- Varna**

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About: Dissertation for the award of educational and scientific degree "Doctor" in the scientific specialty "Therapeutic Dentistry" in the field of higher education 7. Health and sports in professional field 7.2. Dental Medicine; in the Department of Conservative Dentistry and Oral Pathology, FDM, MU-Varna.

Author: d-r Boris Sashev Valkov

Form of doctoral studies: PhD student

Topic: „STUDY OF THE PROPERTIES OF TEMPORARY FILLING MATERIALS”

Scientific supervisor: Assoc. Prof. Miglena Ilieva Balcheva – Eneva, MD, PhD. Department of Conservative Dentistry and Oral Pathology, FDM, MU-Varna.

General presentation of the procedure and the PhD student

The presented complete set of materials regarding the dissertation is on paper and electronic media and meets the requirements for obtaining the educational and scientific degree "Doctor" in the scientific specialty "Therapeutic Dentistry" in the field of higher education 7. Health and sports in professional field 7.2. Dental Medicine.

Заличено на основание чл. 5,
§1, б. „Б“ от Регламент (ЕС)
2016/679

The dissertation contains 165 standard pages and is illustrated with 34 tables and 55 figures. The bibliography consists of 211 sources, of which 9 are in Cyrillic and 202 are in Latin. The literature review contains 57 pages, aim and tasks - 1 page, materials and methods -16 pages, results and the discussion - 56 pages, conclusions - 1 page, contributions - 1 page.

The presented abstract meets all the requirements of the Law for the Development of Academic Staff in the Republic of Bulgaria.

The doctoral student has enclosed 3 publications related to the dissertation, in which he is the first author.

Biographical data about the PhD student:

D-r Boris Sashev Valkov was born on 17.04.1990. in Shumen. In 2016 he graduated with a master's degree in dental medicine from Faculty of dental medicine, MU Varna. Since 2019 he has been an assistant in the Department of Conservative Dentistry and Oral Pathology, FDM-Varna.

Evaluation of the personal contribution of the PhD student

The dissertation examines an actual problem in modern dental medicine - the application of temporary obturation materials. Treatment of dental caries and its complications sometimes requires a multi-stage approach, which can be the result of a number of reasons such as persistent infection or lack of time on the part of the patient or the dental practitioner. For optimal results, the filled cavity should be sealed between visits. Its sealing is achieved with temporary filling materials. The aim is to protect the pulpo-dentinal complex in the case of caries or to prevent the entry of microorganisms that could compromise an ongoing root canal treatment. In addition, these materials must meet a number of other requirements such as restoration of occlusal relationships and lost tooth function. A number of temporary obturation materials are available on the market, which differ in composition and properties. The choice of a specific temporary obturation material depends on various factors.

Dr. Valkov has made a critical analysis of the literature on the subject, which gives him the basis to precisely formulate the aim of his research:“ **Study the properties of temporary filling materials and their capabilities for HDT protection and tooth/cavity sealing in multi-stage treatment.**“

In order to achieve this aim, he sets himself the following **tasks**:

- 1.Study the antibacterial qualities of materials for temporary obturation.**
- 2.Study the microleakage in different types of temporary filling materials.**
- 3.Establish the sensitizing potential of temporary filling materials..**

The results and discussion are presented with tables and diagrams. The conclusions correspond to the obtained results.

The self-assessment of the contributions related to the dissertation includes 2 contributions with original and 3 contribution with confirmatory character.

Confirmatory contributions:

1. We confirmed the antimicrobial action of eugenol, both alone and in combination with ZnO.
2. We confirmed a high degree of microleakage around all types of temporary obturation, especially after a longer period.
3. We confirmed the high risk of developing cross-hypersensitivity between different acrylates and methacrylates in dental practice.

Original scientific and applied contributions:

1. The antibacterial properties of temporary filling materials were investigated for the first time.
2. Sensitization to temporary filling materials was investigated for the first time with the proposed panel of diagnostic allergens.

There are no omissions in the documentation attached by the PhD student Dr. Valkov. It meets the requirements of ZRASRB, PPZRASRB and the Regulations on the terms and conditions for obtaining scientific degrees and holding academic positions at the Faculty of Dental Medicine, Medical University "Prof. Dr. Paraskev Stoyanov" - Varna.

Personal impressions of the PhD student:

I have known Dr. Boris Valkov since he was a student, when he was known for his hard work, thirst for knowledge and willingness to help his colleagues. As an Ass. Professor in MU-Varna, he is extremely responsible for his work, he does not stop improving and developing, upgrading his skills and knowledge, he is friendly and honest, which is why he is highly respected by his colleagues and loved by his students.

The PhD thesis "STUDY OF THE PROPERTIES OF TEMPORARY FILLING MATERIALS" of Boris Sashev Valkov, DMD is an original scientific contribution and meets the requirements of the Law on the Development of the Academic Staff of the Republic of

Bulgaria, the Regulations for its Application and the Regulations for the Development of the Academic Staff of the Medical University – Varna. Due to the above reasons I propose the award of an educational and scientific degree “Doctor” in the field of higher education 7. Healthcare and Sports, professional field 7.2. Dental Medicine for Boris Sashev Valkov.

2406.2024

Prepared the review:

Заличено на основание чл. 5,
§1, б. „В“ от Регламент (ЕС)
2016/679

Assoc. Prof. Dr. Tsvetelina Iliyanova Borisova-Papancheva, DMD, PhD

