



REVIEW

by

Prof. Dr. Dilyana Vicheva Vicheva, MD
Department of ENT Diseases
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Regarding the dissertation thesis titled:

"Postoperative Period in Rhinosurgery – Packings, Splints,
Postoperative Care – Types, Necessity, Effectiveness"
for the award of the educational and scientific degree "Doctor"

to

Dr. Polina Petrova Ivanova

Field of Higher Education: 7. Healthcare and Sports

Professional Direction: 7.1 Medicine

Scientific Specialty: Otorhinolaryngology

Form of Doctoral Study: Full-time

Department of Surgery and ENT Diseases at the Medical
University – Varna

Scientific Supervisor: Assoc. Prof. Dr. Georgi Petkov Iliev, MD

Scientific Consultant: Prof. Dr. Nikolay Rumenov Sapundzhiev,
MD

By Order № R – 109-414/25.11.2024 of the Rector of the
Medical University – Varna, I have been appointed as a member
of the scientific jury.

Biographical Data of the Doctoral Candidate

Dr. Polina Ivanova completed her secondary education with excellent grades at the Fourth Language High School "Frédéric Joliot-Curie" in Varna. In 2019, she graduated with honors in medicine from the Medical University – Varna. During her medical studies in 2017 and 2018, Dr. Ivanova served as a student demonstrator in the Department of Neurosurgery and ENT Diseases, actively assisting in the practical ENT training of both Bulgarian and international students.

In 2020, after winning a competitive selection process, she began her specialization in ENT diseases at the ENT Department

of "St. Anna" Hospital, Varna. That same year, she secured a position as a full-time doctoral student in the Department of Neurosurgery and ENT Diseases, focusing on the topic: "Postoperative Period in Rhinosurgery – Packings, Splints, Postoperative Care – Types, Necessity, Effectiveness."

Her clinical and research interests are primarily in rhinologic surgery. In 2022, she successfully completed a specialized course on reconstructive and aesthetic nasal and facial surgery in the Netherlands – '22nd International Course on Reconstructive and Aesthetic Surgery of the Nose and Face,' Nijmegen, Netherlands.

Dr. Ivanova is a member of the Bulgarian Medical Association, the Bulgarian National Association of Otorhinolaryngology, Head and Neck Surgery, the European Rhinologic Society, and the Youth Confederation of European ORL-HNS. She is proficient in English and Spanish.

The dissertation submitted for my review is structured in accordance with the Law on Academic Staff Development in the Republic of Bulgaria. The dissertation consists of 125 pages, of which 105 are the main text. It includes all the essential sections: introduction (3 pages), literature review (39 pages), aims, objectives, hypothesis, and methodology (2 pages), results (39 pages), discussion (10 pages), conclusions, and contributions (3 pages). The bibliography cites 185 sources. The dissertation is illustrated with 10 tables and 56 figures.

Relevance of the Topic

Dr. Polina Petrova Ivanova's dissertation addresses a current and practically significant issue in the field of otorhinolaryngology: evaluating the effectiveness and impact of postoperative intranasal tamponades and splints. The topic is highly relevant due to the lack of a unified consensus on the optimal choice of these materials in the postoperative period following rhinologic surgeries.

Understanding of the Problem

The introduction, along with the fundamental insights provided on the postoperative period—tamponades, splints, and care following nasal surgeries—demonstrates the doctoral candidate's understanding of the issue addressed in the dissertation. Her creative use of the cited literature further reflects her grasp of the problem's current state.

Literature Review

The literature review is comprehensive and well-structured, covering the historical context of the use of intranasal packings and splints, the various types of materials, and their mechanisms of action. It thoroughly presents the evolution of these devices and current trends in their application in rhinologic procedures. The candidate convincingly highlights the need for an in-depth comparative analysis, given the absence of a unified perspective

on the advantages and disadvantages of different approaches in postoperative care.

The review does not specifically address Bulgarian experience in rhinologic surgery to date. However, it discusses the controversial question of whether antibiotic-containing local medications are necessary postoperatively, as well as the importance of preserving the mucociliary clearance of the nasal mucosa.

Aims and Objectives

The aim of the dissertation is clearly stated: to perform a comparative analysis of various types of intranasal tamponades and splints by evaluating their effectiveness in preventing complications, ensuring patient comfort, and restoring mucociliary clearance. The six outlined objectives include conducting a systematic literature review, a clinical trial involving 98 patients, and a statistical analysis of the results, all of which hold practical relevance for rhinologic surgeons in Bulgaria.

Materials and Methods

The materials and methods are rigorously defined. The study involves 98 patients divided into four groups based on the postoperative materials used. For each group, parameters such as pain intensity (measured by the Visual Analog Scale, VAS), postoperative complications (synechiae, infections, secondary bleeding), and the recovery of mucociliary clearance (assessed via the saccharin test) were analyzed. Statistical analysis was conducted using standard methods to determine the significance of differences between groups.

Results

The study results are presented clearly and systematically, with appropriate use of graphs and tables to visualize the data. The candidate demonstrates statistically significant differences in the effectiveness of the materials used, with some showing lower risks of complications and higher patient comfort. The analysis is thorough, and the discussion critically evaluates the findings in the context of existing literature. The conclusions drawn are logical, aligning with the objectives and the conducted research.

Dr. Polina Ivanova succinctly formulates the main conclusions and contributions of the dissertation, deriving them logically from the study's results. However, the literature review lacks references to Bulgarian authors and authors using Cyrillic script. On the topic of the dissertation, Dr. Ivanova has published two articles and participated in two international scientific forums.

The dissertation is well-organized, with proper use of medical terminology and a logically structured text. The figures and tables are precisely explained and effectively illustrate the findings. The abstract spans 56 pages, adheres to the relevant regulations, and reflects the main results, conclusions, and

contributions achieved in the dissertation.

Conclusion

The dissertation contains scientific and applied results, which represent an original contribution to science and meet the requirements of the Law on Academic Staff Development in the Republic of Bulgaria, its Implementation Regulations, and the internal criteria of the Medical University – Varna. The presented materials and dissertation findings fully comply with the specific requirements of the Medical University – Varna.

The dissertation demonstrates that the doctoral candidate, Dr. Polina Ivanova, possesses profound theoretical knowledge, high professionalism, and the qualities and skills necessary for conducting independent scientific research.

In light of the above, I consider the dissertation presented to me as a contemporary and thought-provoking work that addresses important medical issues and holds not only theoretical but also practical significance in Bulgarian otorhinolaryngology. Therefore, I believe it deserves a positive evaluation for the conducted study, achieved results, and contributions. I confidently and unequivocally recommend that the honorable jury confer the educational and scientific degree of "Doctor" upon Dr. Polina Petrova Ivanova in the doctoral program for the scientific specialty: "Otorhinolaryngology."

Date: January 8, 2025

Reviewer:

Prof. Dr. Dilyana Vicheva
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Заличено на основание чл. 5,
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