

TO: THE CHAIRMAN OF THE SCIENTIFIC JURY
DETERMINED WITH ORDER No. P-109-188/15.03.2023
FROM THE RECTOR OF MU-VARNA

STATEMENT

from

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Regarding: Defense of the thesis of **Dr. Stefani Mariyanova Todorova**, for the acquisition of the educational and scientific degree "Doctor", higher education area 7. "Health and sport" in professional direction 7.1 "Medicine" and scientific specialty 03.01.41. "Neurosurgery", on the topic: **"Endoscope-assisted evacuation of chronic subdural hematomas"** with scientific supervisor Prof. Dr. Yavor Petkov Enchev, MD, for awarding the Educational and Scientific Degree "Doctor"

Biography of the author

Dr. Stefani Mariyanova Todorova was born in Razgrad in 1992. In 2011 she graduated from the "Konstantin Preslavski" highschool of Varna with excellent results. In 2017 graduated Medicine specialty at the Medical University "Prof. Dr. Paraskev Stoyanov" - Varna. After her graduation, she was appointed to the Clinic of Neurosurgery at "Sveta Marina" University Hospital - Varna as a staff physician. From 2018 is a resident in neurosurgery, and since 2019 is a PhD student in the Department of Neurosurgery and ENT Diseases at the Medical University - Varna. From 2020 is an assistant at the Department of Neurosurgery and ENT Diseases of the Medical University - Varna.

Relevance of the topic

The dissertation work of Stefani Mariyanova Todorova is dedicated to a socially significant topic in the neurosurgical practice, which is one of the most common surgical



emergency interventions in neurosurgery - the surgical treatment of patients with chronic subdural hematomas. Their number is also increasing due to the widespread use of anticoagulant and antiaggregant medications both around the world and in our country. This problem is a serious challenge for healthcare in our country, as it is also related to the growing requirements and technological possibilities and costs for treatment and patient care.

Awareness to the problem

The dissertation contains 115 pages, including 3 tables, 37 figures and 15 photographs. 201 literary sources are cited, of which 3 are in Cyrillic and 198 are in Latin. The literature review takes up 42 pages, is well laid out and structured. It shows the doctoral student's excellent knowledge of the topic, systematicity and wide scope of the issues under consideration. The in-depth review of the literature on the subject of leading bulgarian and foreign authors and documents reveals the essence and significance of the researched problem. The doctoral student demonstrates a detailed knowledge of the topical subject of the dissertation and the current context of the problem. The introduction is laid out sufficiently clearly, comprehensively, topically and comprehensibly.

Characteristics and evaluation of the dissertation work and the contributions

The set tasks are seven, relevant to the goal, concrete and realistic. A hypothesis was formulated, which is the starting point of the dissertation work, considering the endoscope-assisted evacuation of chronic subdural hematomas, as a safe and effective method for patients, including those of advanced age. The method is a minimally invasive surgical treatment with a favorable outcome of the disease. The research is retrospective in nature and was conducted for the period 2011-2021. The material presented is convincing and sufficient for logically presented results and general conclusions. The obtained results were processed using statistical methods - variation, dispersion, correlation and comparative analyses, risk assessment analysis. The results of the present study show that 11.9% of patients with chronic SDH reported alcohol use, and 17.7% of those taking anticoagulants. Patients with hematological diseases are 4.6%, which are characterized by a long hospital stay, a complicated clinical picture and, in most cases, a fatal outcome. The obtained results and their discussion fully correspond to the formulated hypothesis, goal and tasks of the doctoral student, and the analysis of the presented results gives the opportunity to logically reach the conclusions. Six general conclusions are formulated, which follow correctly and logically

from the analysis of the results. The conclusions are specific, but at the same time comprehensive and reflect the most important conclusions obtained from the research.

The scientific work is well structured, written in the standard academic style of presentation, clear and specific. From the presentation of the literature review, the tasks set, the results obtained and the conclusions drawn, the author's ability to chronologically and consistently follow the problems of the scientific topic and logically analyze the obtained data is evident. Based on these qualities, he makes relevant generalizations and subsequently significant conclusions, having scientific-theoretical and scientific-practical value. Statistical processing and analysis of the data was carried out.

The conclusions drawn in the dissertation follow correctly and logically from the analysis of the results. The conclusions are specific and at the same time comprehensive and reflect the most important conclusions obtained from the research.

The scientific work is well structured, written in the standard academic style of presentation, clear and specific. From the presentation of the literature review, the tasks set, the results obtained and the conclusions drawn, the author's ability to chronologically and consistently follow the problems of the scientific topic and logically analyze the obtained data is evident. The contributions of Dr. Stefani Mariyanova Todorova's dissertation are original, confirmatory and applied in the practical neurosurgical field.

Authentic contributions

- A comprehensive characteristic of patients with chronic subdural hematoma is presented, risk factors are assessed and a patient risk profile is created.
- The effectiveness of the neuroendoscope-assisted evacuation of the subdural hematoma has been proven.
- Based on a thorough analysis of the existing specialized literature and the results of the study, indications and contraindications for the application of neuroendoscope-assisted evacuation of subdural hematoma were formulated.
- A protocol for the intraoperative application of an endoscope in the neurosurgical interventions of chronic subdural hematomas was introduced in the Neurosurgery Clinic of UMBAL "St. Marina", city of Varna as a routine method of surgical treatment.
- The recommendations for the intraoperative application of an endoscope in the neurosurgical treatment of patients with chronic subdural hematomas are formulated on the basis of statistical processing and data analysis.



Assessment of the publications and personal contributions

In relation to the dissertation work, the doctoral student presents one publication in which she is the lead author. The publication was printed in a specialized international edition in English: Todorova S: Endoscopically – assisted evacuation of chronic subdural hematoma – new gold standart?, International Bulletin of Otorhinolaryngology. 3/2022, 10-13.

Dr. Stefani Mariyanova Todorova was directly involved in the collection and processing of information from the medical files as well as in the surgical treatment of most of the patients included in the study with chronic subdural hematomas. A sufficient volume of information has been processed in a systematized and analytical manner. The dissertation work is presented in a sufficiently clear and well-illustrated way, the conclusions and conclusions are presented and clearly formulated.

Abstract

The abstract meets the requirements for volume, structure and conveniently and easily accessible presents and illustrates the content of the main results and conclusions in the dissertation in a synthesized form.

CONCLUSION

The dissertation work of Dr. Stefani Mariyanova Todorova is written competently, with a clear style and spelling, well-illustrated and is a completely completed, well-arranged scientific work that meets all the requirements of the Bulgarian Law for Academic Development and the Regulations for its application.

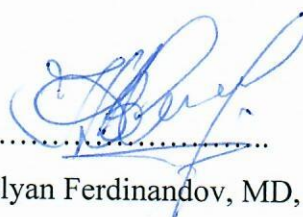
Thus, in conclusion, I could add that the doctoral student Dr. Stefani Mariyanova Todorova possesses theoretical knowledge and professional skills in the scientific specialty "Neurosurgery", demonstrating qualities and skills for independent conduct of scientific research.

As well as the successful professional development, publication activity and teaching activity, I strongly recommend to the respected members of the Scientific Jury to vote positively and award the deserved educational and scientific degree "doctor" to Dr. Stefani Mariyanova Todorova in the doctoral program in "Neurosurgery", for which I give my **POSITIVE** vote.

24.04.2023

Sofia, Bulgaria

Signature:



Assoc. Prof. Dilyan Ferdinandov, MD, PhD