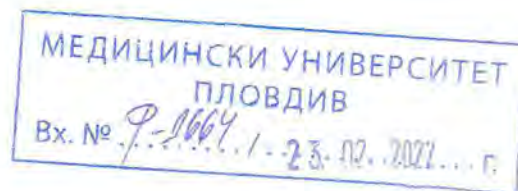


STATEMENT



by

Prof. Dr. Nikolay Kirilov Yaramov, DSc

**Clinic of general, abdominal and vascular surgery MI of the Ministry of Interior -
Sofia**

of

the dissertation for awarding the educational and scientific degree "Doctor"

Professional field: 7.1 Medicine, Thoracic surgery

Author: Dr. Velizar Dafinov Hadzhiminev

Department of Special surgery, MU – Plovdiv

Form of doctoral studies: Independent preparation

**Topic: „Secondary spontaneous pneumothorax – a study on diagnostic and
therapeutic approach“**

Supervisor:

Assoc. Prof. Dr. Ivan Novakov, DSc

Brief biographical data about the doctoral student

Dr. Velizar Dafinov Hadzhiminev was born on March 22, 1988 in Nova Zagora. In 2007 he graduated from the Foreign language high school in Haskovo with English and German. He graduated from the Medical University of Varna in 2013. In the same year he started working as a doctor - resident in the "Second Clinic of Surgery" of the University Hospital St. George - Plovdiv. In 2019 he became specialist in surgery. In 2017 he started working as an assistant professor in the Department of Special Surgery at MU-Plovdiv, and in 2021 he became an assistant professor in the Department of Propedeutics of Surgical Diseases, section of General surgery at MU-Plovdiv. He has participated in courses and seminars in Bulgaria and abroad. He speaks English and German.

Relevance of the topic and expediency of the goals and tasks

Secondary spontaneous pneumothorax occurs in about 15% of patients with spontaneous pneumothorax. These are patients with underlying one or more lung diseases. In most cases, their treatment is operative and urgent, which is associated with a significant percentage of complications. There are various surgical methods, and to this day there is no standardized approach.

The dissertation "Secondary spontaneous pneumothorax - a study on diagnostic and therapeutic approach" is significant in scientific, clinical and practical-applied terms. Surgical treatment of secondary spontaneous pneumothorax is a challenge for surgeons in terms of achieving good postoperative results and reducing recurrences. It should be borne in mind that such a study on epidemiology, diagnosis, treatment and related complications, covering a long period of time and studying a large population of patients, is the first conducted in Bulgaria. Impressive is the fact that the author has studied patients with COVID-19 associated pneumothorax in the context of the 2020 pandemic.

All this makes the problem studied by Dr. Velizar Hadzhiminev relevant and dissertable, with goals and objectives of scientific research.

Knowledge of the problem

Based on the in-depth use of the medical database in the literature review and comprehensively applying the available current scientific information, the doctoral student aims at modern research on clinical, diagnostic and therapeutic aspects of secondary spontaneous pneumothorax. The structure of the literature review, the formulation of the goal and related tasks, the presentation of the results and their analysis show that Dr. Hadzhiminev has an in-depth research view on the scientific problem put under consideration.

Characteristics and evaluation of the dissertation

The dissertation studied 179 patients. 160 of them were included in a retrospective group and 19 were followed up prospectively. A study covering the period 2014-2020 was conducted. The patients included in it were hospitalized and treated in the Second Surgical Clinic at the University Hospital "St. George" - Plovdiv. Clinical, laboratory and instrumental methods of examination of patients were used. The processing of the results was performed by appropriate statistical methods.

The dissertation is written on 148 standard pages and is structured correctly. It is illustrated with 37 figures, 12 tables and 1 diagram. The bibliography includes 210 literary sources, of which 209 in Latin and 1 in Cyrillic.

The literature review is detailed and comprehensive. The presented and critically analyzed literature data enable the doctoral student to formulate the aim and justify the tasks used.

The aim of the dissertation is formulated precisely and clearly. To achieve the goal **5 specific tasks** are presented.

The **Material and Methods** section is structured correctly. 179 patients were studied for the period 2014-2020.

The structure of the clinical contingent in terms of demographic data, underlying lung pathology, country and size of pneumothorax are examined in detail. The main diagnostic methods (clinical, laboratory and instrumental) are presented. The therapeutic methods used and the related complications are discussed in detail. A modern software package is used for statistical analysis.

The results are statistically processed, analyzed and interpreted correctly and thoroughly. The obtained results are considered in the following logistical order - epidemiology of secondary spontaneous pneumothorax, etiology of secondary spontaneous pneumothorax, size and location, methods of treatment and postoperative complications, COVID-19 and secondary spontaneous pneumothorax. The data about the studied groups of patients are illustrated in tables and figures.

In the chapter "**Results and discussion**" the doctoral student summarizes the achieved results, making analytical conclusions. A detailed analysis of the results of surgical treatment of patients with secondary spontaneous pneumothorax was performed. The postoperative complications, advantages and disadvantages of the various operative techniques are discussed, and knowledge of the subject is demonstrated. Eighteen patients with COVID-19 pneumonia as a new and unexplored cause of secondary spontaneous pneumothorax were examined and studied in detail. The doctoral student's own experience is compared with that of other authors, using the analysis and comparison of the achieved results. The author proposes a diagnostic-therapeutic algorithm in patients with COPD and secondary spontaneous pneumothorax.

The conclusions follow the set goal and tasks and represent a logical summary of the scientific work, referring to the most significant findings of the analysis of the results.

Publications related to the dissertation

Dr. Hadzhiminev has 4 publications related to the dissertation - 3 in English and 1 in Bulgarian. He has participated with scientific reports in 2 scientific conferences.

The abstract is presented on 60 standard pages. It is structured and shaped correctly according to the requirements, reliably reflecting the content, main results and conclusions of the dissertation.

Conclusion

The dissertation of Dr. Hadzhiminev contains scientific and applied results that meet the requirements of the Law on the Development of the Academic Staff of the Republic of Bulgaria and Regulations of MU - Plovdiv. I am convinced of my positive assessment of the research and I propose to the esteemed scientific jury to award the educational and scientific degree "Doctor" to Dr. Velizar Hadzhiminev in a doctoral program in "Thoracic Surgery".

23.02.2022

Sofia

Prof. Dr. Nikolay Yaramov, DSc

