## STATEMENT

by

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On the dissertation and abstract on the topic

# PELVIC AND INTESTINAL ABSCESSES

Developed by Dr. Hristo Yuri Nikov

Scientific supervisor: Assoc. Prof. Dr. Plamen Chernopolsky, MD, PhD

Form of Doctoral Studies: Full-time

Scientific Specialty: 03.01.37 "Surgery"

Based on Order No. R-109-172 / 01.03.2023 of the Rector of Medical University - Varna, I have been appointed as a member of the scientific committee as an external member. At the meeting of the scientific committee, I am tasked with preparing an opinion on the dissertation mentioned above.

#### 1. Information about the PhD Candidate

The PhD candidate is enrolled in full-time doctoral studies at the Department of Surgical Diseases, Medical University - Varna, specializing in Surgery. The training is conducted in full accordance with the requirements of the regulation for the development of the academic staff at the Medical University - Varna.

The necessary materials required for preparing this opinion were made available to me:

- 1.Abstract
- 2.Dissertation
- 3. Autobiography
- 4.Orders and protocols for enrollment and expulsion with the right to defend

- 5.List of scientific publications on the topic of the dissertation
- 6. List of participations in scientific forums
- 7.Other documents related to the progress of the procedure.

The PhD candidate has 3 publications on the topic of the dissertation in Bulgarian and foreign editions, where he is the first author in only one of them.

2. Short biographical information about the doctoral candidate.

Dr. Nikov graduated from Medical University of Varna in 2017. Following this, he worked as a physician from 2017 to 2018 at the Second Clinic of Surgery at UMBAL "St. Marina" in Varna and was an honorary assistant at the Department of Surgical Diseases at the Medical University of Varna. Since November 2020, he has been a regular PhD student at the department. He is proficient in written and spoken English, German, and Russian.

### 3. Relevance of the topic

The issue of diagnosing and managing pelvic and intestinal abscesses of different origins is relevant due to the frequency and various etiological causes for their development. The topic requires a multidisciplinary approach involving clinicians, imaging specialists, as well as microbiologists. Problems related to pelvic sbscesses are also relevant in terms of the correct therapeutic strategy. A well-structured diagnostic and therapeutic algorithm for management is presented. The retrospective analysis conducted covers a 10-year period and a sufficient number of patients to enable a proper statistical analysis.

# 4. General characteristics of the presented dissertation work:

The dissertation work consists of 129 standard typewritten pages in grammatically correct Bulgarian language with proper punctuation:

- 1. Abbreviations used 1 page
- 2. Introduction 2 pages
- 3 .Literature review 39 pages
- 4. Aim and objectives 1 page
- 5. Materials and methods 6 pages
- 6. Results 39 pages
- 7. Discussion 21 pages
- 8. Conclusion 2 pages
- 9. Diagnostic-therapeutic algorithm 1 page.
- 10. Conclusions 2 pages
- 11. Contributions 1 page

- 12. Publications related to the dissertation 1 page
- 13. References 8 pages

The dissertation includes 18 figures and 40 tables.

The literature review is extensive (39 pages) and represents an in-depth analysis of the literature on the topic of the dissertation. Various etiological factors, diagnostic methods, and therapeutic approaches are discussed in detail. A total of 143 literature sources were used, including 25 Bulgarian sources and the rest are foreign.

The aim of the dissertation is clearly and specifically stated as to investigate, analyze, classify, and standardize the diagnosis, preoperative approach, and treatment of patients with pelvic nd intestinal abscesses, with the aim of optimizing treatment outcomes, reducing complications and rehospitalizations, and achieving a better quality of life.

The tasks are precisely formulated and executed to achieve the stated goal.

The dissertation covers a retrospective analysis for the period 2010-2020, including 160 patients with intra-abdominal abscesses of intestinal origin, including those with pelvic localization, both from intestinal and non-intestinal origins. The demographic characteristics are illustrated, and a detailed distribution by diagnosis is presented. Diagnostic methods including a multidisciplinary approach, including microbiological and histological studies, were used. The therapeutic methods used, combining conservative treatment and drainage through percutaneous, endoscopic, or surgical access, are presented. The application of intensive care and data from one-month follow-up are also reflected.

The statistical capabilities have been used to process the data in tables by grouping them, using descriptive methods, correlation analysis, and testing statistical hypotheses.

In the "Results" chapter, parameters for observation are followed, including: sociodemographic indicators of patients, clinical symptoms, laboratory results, imaging results, preoperative ASA staging, as well as the applied therapeutic approach and results of the conducted treatment. A review of antimicrobial therapy based on systematic microbiological control has been carried out. An analysis of accompanying diseases, the presence of complications and the need for intensive treatment has been performed. The discussion follows the sequence of the literature review and the data from the obtained results, which are comparable to the generally accepted standards in the treatment of pelvic and intestinal abscesses.

In the presented results, the lack of analysis of the improvement in quality of life during treatment and follow-up can be noted.

Based on the achieved results, Dr. Nikov proposes a well-structured and illustrative classification of pelvic and intestinal abscesses.

The presented diagnostic-therapeutic algorithm is comprehensive and exhaustive, as all possible steps in the treatment process are presented. For the purposes of clinical practice, this model provides a good foundation, but it can be updated and simplified.

The conclusions are correctly formulated and correspond to the set tasks, outlining fully the achievement of the goal of the dissertation

#### 5. I accept as contributions:

In the scientific-theoretical field:

1.A diagnostic distribution of patients with pelvic and intestinal abscesses has been carried out, and a classification has been proposed based on the etiopathogenic origin and localization.

In the scientific-practical field:

- 1.A diagnostic-therapeutic algorithm has been developed for the management of pelvic and intestinal abscesses.
- 2. The most common symptoms, appropriate imaging diagnostic methods, and results of microbiological investigations have been analyzed.
- 3. An analysis has been performed on non-operative and operative approaches for controlling the source, their advantages and disadvantages in terms of time, adequacy, radicality, hospitalization period, risks, and benefits. The role of antimicrobial therapy in the treatment of patients with pelvic and intestinal abscesses has been clarified duration, adequacy, appropriate regimens.

With a confirmatory nature:

1. The preoperative risk and predictive risk factors such as age, comorbidities, need for intensive care, occurred complications that influence the length of hospital stay and the outcome of the disease have been clarified and analyzed.

The abstract meets the requirements for a doctoral thesis and reflects the main results achieved in the dissertation.

#### 6. Conclusion

The presented dissertation represents a thorough study of the etiology, diagnosis, and multidisciplinary therapeutic approach to pelvic and intestinal abscesses.

The dissertation of Dr. Hristo Yuri Nikov fully meets the criteria for awarding the educational and scientific degree of "Doctor" and meets all the requirements of the "Law on the Development of the Academic Staff in Republic of Bulgaria" and its implementing regulations, as well as the corresponding regulations of MU-Varna.

All of this gives me grounds to give a positive vote and recommend to the respected members of the scientific jury to award Dr. Hristo Yuri Nikov the educational and scientific degree of "Doctor".

Gorner

Sofia City.

Assoc. Prof. Radosvet Gorney, MD. PhD.

26.04.2023