

To  
The Chairman of the Scientific Jury  
Determined by order No P-109-100/02.02.2023  
Of the Rector of the Medical University "Prof. Dr. P. Stoyanov", Varna  
Prof. Valentin Ignatov, MD, PhD

## **STATEMENT**

by

Prof. Ivelin Takorov, MD, PhD

Head of First Clinic of Abdominal Surgery,

MMA-Sofia

*Regarding: the defense of the dissertation work for the acquisition of an educational and scientific degree "PhD" on the topic: "Role of virtual colonoscopy in minimally invasive and robotic oncological colorectal surgery", developed by Dr. Mehmed Behcet Hadzhiveli, surgeon at the First Clinic of Surgery of "St. Marina" University Hospital - Varna.*

Doctor Mehmed Hadzhiveli was born in 1982. He completed his higher medical education at MU-Sofia in 2007. He has a recognized specialty in surgery since 2014. and a second recognized specialty in thoracic surgery in 2019. His academic career began in 2017, when, after a contest, he was appointed as an assistant at the Department of General and Operative Surgery at the Medical University of Varna. He received additional qualification in laparoscopic surgery. Dr. Hadjiveli actively participates in scientific and clinical activities, develops 2 works on topics related to the dissertation, and the general scientific output of the candidate includes more than 20 scientific announcements at national and international conferences and congresses. Uses English language. Dr. Hadzhiveli is a regular member of the Bulgarian Surgical Society.

The scientific work "The role of virtual colonoscopy in minimally invasive and robotic oncological colorectal surgery", presented for evaluation was developed in accordance with the requirements for obtaining the scientific and educational degree "PhD", is illustrated with 59 figures and 29 tables, and has a total volume of 164 pages distributed as follows:

Introduction - 1 page

Abbreviations used – 2 pages.

Literature review - 52 pages.

Aim and tasks - 1 page.

Materials and methods – 12 pages.

Results - 38 pages.

Discussion - 24 pages.

Implications - 1 page

Conclusion - 1 page

Contributions - 1 p.

Publications related to the dissertation - 1 page.

Appendices - 2 pages

Bibliography - 18 pages.

The increasing frequency of colorectal carcinoma, which has become a socially significant disease, testifies to the relevance of the dissertation work. Against this background, the systematized presentation of possible diagnostic methods, and especially virtual colonoscopy, allows early detection, staging, preoperative planning and follow-up. Minimally invasive operative methods are becoming more and more reliable in daily practice. Moreover, the analysis of a large series of patients examined by virtual colonoscopy and operated by modern laparoscopic and robotic methods allows for a critical and in-depth look at the advantages and disadvantages of the used techniques.

The literature review presented in 52 printed pages is detailed, clearly structured and up-to-date. After a brief historical reference in the first point of the review, the author examines the demography, epidemiology and medico-social significance of colorectal carcinoma. Modern minimally invasive methods are the subject of the second and third points of the literature review. Logically, in the fourth point, the novelties in imaging diagnostics, economic analysis, satisfaction and quality of life of patients with colorectal cancer are presented in great detail. The critical evaluation of the problem circle is a smooth transition to the goal and the set tasks.

The set aim - "to study the role of virtual colonoscopy in minimally invasive and robotic oncological colorectal surgery" is adequate, and the five tasks for its implementation exactly correspond to the topic of the dissertation and I consider that they have been fulfilled.

In the chapter "Materials and methods" the retrospectively followed 1695 patients are presented, with subgroups of patients with virtual colonoscopy (n=1695) and patients with virtual colonoscopy and fibrocolonoscopy (n=812), as well as operated patients (n=715), of which minimal invasive (n=112).

In the next chapter - "Results", the results obtained after data processing are presented and analyzed on 38 pages, richly illustrated with 42 figures and 29 tables. The numbering of the figures and tables has been reviewed, and the graphs and tables presented contain details from which clinically relevant information can easily be obtained and conclusions drawn.

The analysis of the obtained results is presented in a separate chapter, where the author emphasizes the high frequency of synchronous colorectal cancer (16%) and synchronous polyps with colorectal carcinomas (42%) in the studied population, the topographic-anatomical distribution of colorectal carcinoma and synchronous neoplasms, T-stage, the extracolonic established pathology – malignant and/or benign, as well as the choice of surgical method after the information presented by the virtual colonoscopy. The analysis of the vascular anatomy of the mesenteric vessels is also of interest.

The discussion, 24 pages, follows the course of the literature review, makes a critical comparison of the obtained results and brings out as leading factors synchronous colic pathologies, synchronous extracolonic diseases, as well as the high informativeness of virtual colonoscopy when choosing an operative strategy. The 7 conclusions made correspond to the specified tasks and to a large extent manage to summarize the significance of the work. I accept the contributions indicated by the dissertation, since the work is truly innovative for the Bulgarian medical practice.

The bibliographic reference is comprehensive and up-to-date, including 233 scientific works in Latin. Almost all fundamental works relevant to the development of virtual colonoscopy are cited. 92.3% (n=215) of the cited books and scientific articles were published in the last five years. I like the arrangement of the sources according to the order of their appearance in the text.

Taking into account all the above, as well as the personal and professional qualities of Dr. Mehmed Hadzhiveli, I express my opinion "for" the defense of the dissertation work "Role of virtual colonoscopy in minimally invasive and robotic oncological colorectal surgery" and allow myself to invite the esteemed members of the scientific jury to support him for awarding the educational and scientific degree "PhD".

06.03.2023

Sofia

Member of the jury:



(Prof. Ivelin Takorov, MD, PhD)