

OPINION

of dissertation for the award of educational and scientific degree "Doctor" on the topic:

ENDOVASCULAR TREATMENT FOR TYPE A AND TYPE B AORTIC DISSECTION

for obtaining the educational and scientific degree "DOCTOR"

of Dr. Zoran Stankov - PhD student in self-study at the Clinic of Cardiology, Department of Invasive Cardiology, University Hospital Acibadem City Clinic, Sofia

Scientific adviser: Prof. Dr. Ivo Petrov, MD, University Hospital Acibadem City Clinic, Sofia

Professional field 7.1. Medicine

Scientific organization: University Hospital Faculty of Medicine, Medical University - Sofia

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Radiology Department, Acibadem City Clinic University Hospital, Sofia University "St. Kliment Ohridski" - Sofia, member of the scientific jury determined by order of № RD-№ 11-07-32 # 1 of 19.04.2022 of the Manager of Acibadem City Clinic University General Hospital for Active Treatment.

1. General presentation of the procedure and the doctoral student: The set of materials and documents presented by Dr. Zoran Stankov in electronic format complies with the requirements of the Law on Development of Academic Staff in the Republic of Bulgaria and the Regulations for its implementation, the Law on Higher Education and with the regulations of Acibadem City Clinic University Hospital on the terms and conditions for acquiring ONS "Doctor".

2. Brief biographical data about the doctoral student: Dr. Zoran Stankov was born in 1982. in the town of Strumica. In 2007 graduated from the Medical University of Sofia with a degree in Medicine. From 2009 to 2012 Dr. Stankov was successively a cardiologist in the cardiology department of Tokuda Hospital Sofia, since 2012 he has been an invasive cardiologist at Acibadem City Clinic University Hospital. Since 2021 Dr. Stankov is Head of the Invasive Department at the Cardiology Clinic of Acibadem City Clinic, University Multidisciplinary Hospital for Active Treatment, where he still works. Dr. Stankov acquired specialties in cardiology in 2015, angiology in 2019, certificates in interventional cardiology in 2016 and echocardiography and health management in 2021. He has passed many training courses at home and abroad and is a member of a number of local and foreign professional and scientific organizations and societies, such as the Bulgarian Medical Union, Bulgarian Society of Cardiology, European Society of Cardiology, Bulgarian Society of Endovascular Treatment .

From the presented data it is clear that the doctoral student has the necessary competencies and skills to successfully develop and complete a dissertation on the topic, doctoral program "Cardiology", professional field 7.1 Medicine, higher education 7. Health and Sports.

3. Relevance of the topic and expediency of the set goals and objectives: The topic of the developed dissertation is undoubtedly relevant and concerns a medical problem of great clinical, prognostic and social significance. The interdisciplinary nature of the problem, as well as the data from the scientific literature determine the need to clarify for the first time in Bulgaria the risk factors for the disease, the course, the specifics of interventional treatment and prognosis after endovascular and hybrid treatment.

4. Structure of the dissertation: The dissertation and the abstract to it are well structured and meet the generally accepted criteria. The dissertation is written on 179 standard typewritten pages, of which 167 pages of text (Introduction - 2 pages, Literary Review - 53 pages, Objectives - 1 page, Materials and methods - 18 pages, Results - 36 pages, Discussion - 38 pages, Examples of endovascular treatment of aortic dissection - 7 pages, Conclusions - 3 pages, Contributions to scientific work - 2 pages) and 12 pages bibliography. The individual parts are well balanced. The dissertation contains 68 figures and 41 tables, which are informative and clearly present the results of the work. The review is in the volume of 114 pages and presents the main data explained in the dissertation work. The complete reading of the materials presented by the doctoral student shows a completed and competently written dissertation. The goal is specific, well-structured, corresponding to the problem under consideration. The tasks are well structured and specifically focused on the goal.

5. Knowledge of the problem: The literature review is presented on 53 pages and is well structured, modern, analytical and contains a sufficient amount of information material. It comprehensively covers the knowledge on the topic so far worldwide. The doctoral student demonstrates competence in the problems related to the topic and the need to develop the dissertation. The unsolved problems are analyzed and indicated, the purpose and tasks of the dissertation are convincingly motivated. In the process of writing his dissertation, the doctoral student has gone deep into the studied issues. The conclusion made and the systematized conclusions at the end of the literature review summarizes the problem and indicates unresolved issues on the topic. This gives the doctoral student reasons to formulate precisely and clearly the purpose of his research.

6. Research methodology and evaluation of the dissertation: A sufficient number of patients have been studied, with well-formulated inclusion and exclusion criteria. The patients studied were divided into.... groups. The first group is from 14 patients with the second group includes 56 patients. The selected methodologies allow for the implementation of the set goal and tasks. The material and methods are described in detail and informatively. Standard functional diagnostic and laboratory methods are used, as well as a precise assessment of risk factors. A therapeutic protocol was used in accordance with current behavioral guidelines. Procedural variables as well as well-defined procedural complications have been selected for evaluation. Used

7. Contributions and significance of the development for science and practice: I find the following contributions to the dissertation: Theoretical contributions of the present work are related to conducting a systematic analysis of the results of endovascular treatment of AD type A and type B in Bulgaria in a series of 70 consecutive patients, as described in detail the protocol for implantation of endoprosthesis with femoral access and closure. vascular access with percutaneous closure devices and the clinical results of its application. For the first time in Bulgaria a large study is being conducted in the endovascular treatment of AD type A and type B. There are many demographic, anatomical and procedural features in these patients.

3. For the first time in Bulgaria the frequency and methods for endovascular treatment of malperfusion syndrome are studied.

It is proved that the modern treatment of dissecting aortic aneurysms type A and B is complex - it includes both stand-alone endovascular treatment and combined primary or secondary hybrid treatment - combined surgical and endovascular therapy.

Of great practical value is described in detail both the implantation protocol and the methods for the treatment of malperfusion syndrome in AD type A and type B, both after surgical treatment and after endovascular treatment.

8. Evaluation of the dissertation publications: In connection with the dissertation, 13 full-text scientific articles and 9 scientific papers presented at national and international scientific forums have been published. In articles and scientific reports Dr. Stankov is a leading author. There are 29 noted citations in Bulgarian and international magazines. In terms of number and quality, the scientific papers are sufficient for ONS "Doctor".

9. Personal participation of the doctoral student: I highly appreciate the personal participation of the doctoral student in the preparation of the dissertation, given the fact that he conducted most of the research and procedures related to the study and processing the results.

10. Abstract: The abstract is 114 pages. He meets the content of the dissertation and the requirements for abstract. It reflects the main points of the research, the most demonstrative figures and tables from the dissertation are included. Lists of publications and participation in scientific forums, as well as the main scientific contributions of the doctoral student are also presented.

CONCLUSION: The dissertation of Dr. Zoran Stankov on "ENDOVASCULAR TREATMENT IN TYPE" A "AND TYPE" B "AORTIC DISSECTION" contains scientific and applied, theoretical and applied results that represent an original contribution to science and practice. of all requirements of the Law for development of the academic staff in the Republic of Bulgaria (ZRASRB), the Regulations for application of ZRASRB and the respective Regulations and the specific requirements of UMHAT Acibadem City Clinic for the terms and conditions for acquiring ONS "Doctor". The doctoral student Dr. Stankov has in-depth theoretical knowledge and professional skills in the field of cardiology, demonstrating qualities and skills for independent research. , achieved results and contributions, and offer to the esteemed scientific zhu to award the educational and scientific degree 'Doctor' to Dr. Zoran Stankov in a doctoral program in Cardiology 2022.

Sofia / /

May 10, 2022
MD

Assoc. Prof. Dr. Lachezar Penev,

