ATTH: THE CHAIRMAN OF THE SCIENTIFIC JURY AT THE MEDICAL UNIVERSITY „PROFESSOR PARASKEV STOYANOV" OF VARNA

PEER REVIEW

by

Prof. Mario Draganov Stankev, MD, PhD
Clinic of Vascular Surgery and Angiology, National Cardiological Hospital of Sofia

of the dissertation work entitled:

OPERATIVE TREATMENT OF CAROTID ARTERIES IN MULTIFOCAL ATHEROSCLEROSIS

for the acquisition of the educational and scientific degree of 'doctor of philosophy' in the field of higher education No 7. Public health and sports, professional trend No 7.1. Medicine and
scientific speciality of 'Surgery'

of Emil Dimitrov Jordanov, MD, PhD student in the doctoral programme of 'Vascular surgery' at the Department of Cardiovascular Surgery and Angiology of the Medical University "Prof. Paraskev Stoyanov" of Varna.
Adviser: Prof. Veselin Petrov Petrov, MD, PhD

The peer review is prepared according to the Statute-book for the application of the Law for development of the academic staff in the Republic of Bulgaria and of the Statute-book for development of the academic staff in the Medical University of Varna. The Scientific jury for the public defence of the dissertation work is appointed

according to Order of the Rector of the Medical University "Prof. Paraskev Stoyanov" of Varna No R-109-576/December 17, 2021.

The dissertation work given to me for the peer review contains 205 standard type-written pages and has the following structure:

- ✓ Contents - 3 pages
- ✓ Abbreviations used - 1 page
- ✓ Introduction - 2 pages
- ✓ Review of the literature - 60 pages
- ✓ Purpose and tasks - 1 page
- ✓ Material and methods - 20 pages
- ✓ Own results - 55 pages
- ✓ Discussion - 45 pages
- ✓ Concluding remarks - 2 pages
- ✓ Conclusions - 1 page
- ✓ Literature - 23 pages
- ✓ List of publications related to the dissertation - 1 page
- ✓ Contributions of the dissertation - 1 page.

The dissertation is illustrated with 30 tables and 105 figures. The reference list includes 230 source titles, of which there are 26 in Cyrillic and 204 in Latin.

Biographical data

Emil Dimitrtov Jordanov, MD, was born on August 2, 1976 in the city of Varna. He graduated from the First English and German Language Secondary School in Varna. In 2001, he graduated in the speciality of medicine from the Medical University 'Professor Paraskev Stoyanov' of Varna. He acquired the specialities of 'Surgery' in 2007 and of 'Vascular surgery' in 2012. During the period between 2001 and 2006, Emil Dimitrov Jordanov, MD, was a post-graduate student in surgery at the Department of General and Operative Surgery, St. Marina University Hospital of Varna. Since 2006 until presence, he works as surgeon and vascular surgeon at the Department of Cardiovascular Surgery and Angiology, St. Marina University Hospital of Varna. He was on specialization assignments in the city of Milan, Italy, in the town

of Pontresina, Switzerland and in the city of Prague, Czech Republic. Emil Dimitrov Jordanov, MD, performs Bulgarian- and English-language education in the form of exercises in general surgery with the students in the speciality of dental medicine as well as in vascular surgery with the students in the speciality of medicine. He has a command of English, German, and Russian languages.

Publications

The PhD student has published two independent scientific articles on the topic of the dissertation work in 2021. His scientific activity during the period of the preparation of the dissertation work meets the normative requirements.

Actuality of the dissertation work

The dissertation is devoted to a particularly actual topic in vascular surgery. Carotid endarterectomy and carotid stenting with angioplastics are officially approved surgical methods of treatment of the carotid arteries and carotid bulbs affected by atherosclerosis within the framework of multifocal atherosclerosis. These interventions are, most commonly, life-saving which defines the importance of their timely and effective usage. The role of the early imaging diagnosis in the patients with carotid atherosclerosis is undoubted, too. In our country, there is no complex comparative investigation of the application of the carotid endarterectomy and carotid stenting with angioplastics in damaged carotid arteries and of the suitable additional surgical methods in case of a parallel affection of other vascular basins. This makes the theme of the dissertation work particularly actual.

Review of the literature

The comprehensive literature information about the problem examined and the thorough and profound analysis of the data cited which have been published predominantly during the last three years prove that the PhD student is very well aware of the novelties on the topic of the dissertation.

Purpose and tasks

The purpose of the dissertation is clearly and exactly defined - to study in a comparative aspect our results from the application of the carotid endarterectomy and

the carotid stenting with angioplastics in the patients with carotid atherosclerosis. Six main tasks are formulated.

Material and methods

The investigation retrospectively analyzes the results from the operative treatment of a total of 199 patients, predominantly at advanced age. A total of 107 patients undergo carotid endarterectomy and 92 patients undergo stenting with angioplastics. They are distributed according to gender, age, localization of the lesions of the blood vessels, used diagnostic imaging methods, kind of the operative intervention, number of complications and accompanying diseases. Imaging diagnosis is accomplished by using of computed tomography-assisted carotidography, Doppler sonography of the carotid arteries, diagnostic angiography and computed tomography of head/brain.

Results and discussion

The analysis of the results obtained is structured in five chapters which are very well illustrated with figures and tables. A comparative assessment of the concrete imaging diagnostic methods, of these two effective and safe surgical methods and of the application of the stenting with angioplastics and of the aortocoronary bypass in the damaged arteries in the other vascular basins is presented.

The discussion includes four chapters according to the logic of the study and thoroughly comments on its results. A comprehensive comparative analysis of PhD student's own results and of the results of other contemporary authors on these problems is carried out.

Concluding remarks

In the concluding remarks, the most important achievements of the investigation are systematized.

Conclusions

The dissertation work ends with six concrete, well-formulated conclusions which correspond as solutions to the task set. The effectiveness and safety of the methods of operative treatment applied is outlined.

Contributions

I accept PhD student's five scientifically applicable contributions of confirmatory nature.

The author's dissertation abstract is structured in accordance with the requirements as its content completely corresponds to the dissertation work.

In conclusion, I consider that the dissertation work given to me for peer reviewing and entitled 'Operative treatment of carotid arteries in multifocal atherosclerosis' represents an own author's elaboration. This work is characterized by preciseness, originality, thoroughness and convincingness. The results achieved undoubtedly contribute to the practical activity in the field of vascular surgery. The PghD student Emil Dimitrov Jordanov, MD, possesses profound theoretical knowledge, professional skills in vascular surgery as well as qualities and skills for independent performance of a complex scientific investigation.

Based on the abovementioned, I give with complete conviction my positive evaluation of the dissertation work presented and propose to the honoured members of the Scientific jury that the educational and scientific degree of 'doctor of philosophy' in the scientific speciality of 'Surgery' is awarded to Emil Dimitrov Jordanov, MD.

January 20, 2022 г.
Sofia

Peer reviewer:
Prof. Mario Draganov Stankev, MD, PhD