

Opinion

On dissertation submitted in particular fulfillment of the requirements for the degree of Doctor of Medicine in the scientific field 7.1 General Surgery; Medicine in the higher education field 7. Healthcare and sport.

Author of dissertation thesis: D-r Sultana Bozhidarova Karamanova-Piperkova

Title of dissertation thesis: **Traumatic lesions of the blood vessels of the extremities. Diagnostic and surgical problems.**

Member of the scientific jury: Prof.Dimitar Radkov Radenovski, PhD. The jury was defined by letter of appointment № RD-26-2087/05.10.2022 UMHATEM “N.I.Pirogov”

The set of documents that was given to me is full and meets the requirements of The Law for Development of Academic Staff in Republic of Bulgaria and of The Regulations of the Development of the Academic Staff in UMHATEM “N.I.Pirogov” – Sofia.

Biographical data

D-r Sultana Karamanova was born in Burgas, where she graduated from English Language Medium School “Geo Milev”. In 2012 she graduated her higher education from Medical University Sofia. In 2019 she made a speciality of “Vascular surgery”. 2015-2021 she completed many qualification courses in the field of vascular traumatism. D-r Karamanova started her professional life in 2013 as an intern in the Vascular Surgery Department in UMHATEM “N.I.Pirogov” – Sofia, where she is still working as a well-known specialist. She is a member of the Bulgarian Doctors Community and the National Community of Vascular and Endovascular Surgery and Angiology. She speaks English and German.

Data on dissertation thesis

The dissertation thesis is about the diagnostic and treatment of the vascular trauma of the upper and lower extremities. This type of traumatism may cause different problems which are as a result of late diagnose and delayed emergency care, lack of qualified surgeons who can perform surgery first 4 to 6 hours when full functional recovery of the extremity is more possible.

The text is divided into 13 separate parts by the author of the dissertation standing by the requirements of such a research. The dissertation has a volume of 166 standard pages and consists of 29 tables and 48 figures. The references consist of 307 titles, 59 written in Cyrillic alphabet.

The aim of the research, namely, to analyze the author's clinical experience on traumatic lesions of the vessels of the extremities in order to improve the diagnostic opportunities and the results after surgical treatment, was completed by means of 8 concrete tasks:

1. To research the quantity and distribution of the traumatic lesions of the vessels of the extremities in our country;
2. To analyze the etiological connection between the trauma itself and its clinical presentation and pathologoanatomical substrate;
3. To investigate the opportunities of the clinical and instrumental methods of diagnostic in traumatic lesions of the vessel of the extremities and to confirm the most informative ones;
4. To set the sequences of treatment activities in patients with multiple trauma;
5. To differentiate the strategy and choice of surgical method in patients with trauma of the vessels of the extremities;
6. To evaluate the different operative methods performed during the treatment of the patients with traumatic lesions of the vessels of the extremities;
7. To research the early and late results after surgical treatment of the traumatic lesions of the vessels of the extremities and to define the influence of the concomitant vascular pathology and other risk factors on them;
8. To make an algorithm for optimal diagnostic and treatment in patient with different kind of vascular trauma of the extremities.

The clinical material for the research is enough to support the final results. It consists of 124 patients with traumatic lesions of the main vessels of the upper and lower extremities (generally 126 extremities – 73 – upper limbs and 53 lower ones) which were treated and followed up from April 2010 to December 2019 in the Vascular Surgery Department at "UMHATEM" N.I.Pirogov". The author was operator in 72 % of the cases. The general number of all hospitalized patients with vascular problems is 5174, i.e., 2,4 % from them are included in the dissertation thesis. 105 (84,67%) from the patients underwent operation were followed up prospectively for the period of 1 to 48 months (24,5 months average). To achieve this aim the research is used interviewing cards, consisting of different features to control postoperative results, for example presence of peripheral pulse detected on the reconstructive arterial vessel, presence of paresthesia, feeling of coldness, venostasis, neurological deficit, movement range

of the extremity, comparison the length between the ill and undamaged extremity in children, progressing of PAD symptoms, results of ultrasound, Doppler sonography (ABI) etc.

The author proposes one diagnostic and one treatment algorithm. She jumps also into 15 conclusions which support the initial aim. Five full text publications are presented. They are enough to meet the national scientific criteria and those accepted by Scientific Jury in UMHATEM "N.I.Pirogov" – Sofia.

In conclusion, I believe that D-r Sultana Bozhidarova Karamanova's dissertation thesis on "Traumatic lesions of the blood vessels of the extremities. Diagnostic and surgical problems" includes applied scientific results and meets all the requirements of The Law for Development of Academic Staff in Republic of Bulgaria and of The Regulations of the Development of the Academic Staff in UMHATEM "N.I.Pirogov" – Sofia.

The author of the dissertation has serious theoretical knowledge and professional qualities and she succeeded in completing the research at high level. Because of these reasons I am giving my positive assessment and I am proposing to the members of the Scientific jury to award Dr. Sultana Bozhidarova Karamanova-Piperkova the scientific degree "Doctor of Medicine" in the professional field 7.1 General Surgery.

Yours sincerely,

Prof. D-r Vladislav Hristov, PhD