

**TO THE CHAIRMAN OF THE SCIENTIFIC JURY,  
APPOINTED BY ORDER № 138 / 02.04.2021  
OF THE EXECUTIVE DIRECTOR OF  
NATIONAL HEART HOSPITAL JSC, SOFIA**

**OPINION**

from

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Head of the Department of Angiology , National Heart Hospital, Sofia,

Member of the Scientific Jury of the competition for the academic position of "Associate Professor" in the field of higher education 7. "Health and Sports", professional field 7.1. "Medicine" and scientific specialty "Vascular Surgery" for the needs of the Clinic of Vascular Surgery, NHH JSC, Sofia announced in SG no. 17 of February 26, 2021

The announcing competition procedure is in compliance with law requirements.

Sole candidate in the competition is Dr. Nadelin Krasimirov Nikolov, MD, assistant at the Clinic of Vascular Surgery at the NATIONAL HEART HOSPITAL, Sofia. The submitted documents have been prepared according to the requirements of the Academic Staff Development Act in the Republic of Bulgaria, Regulations for its implementation and - Regulations on terms and conditions for acquiring scientific degrees and holding academic positions at MHAT NHH EAD.

**Biographical data**

Dr. Nadelin Nikolov was born in 1978. He completed his higher medical education in 2003 at the Medical University, Sofia. In September 2004 he occupied a position as an intern in vascular surgery at the Clinic of Vascular Surgery and Angiology at SHATCVD - Sofia. In November 2006 he was appointed to the Clinic as an Assistant in Vascular Surgery, and in 2015 Dr. Nikolov became Head of the Operating Unit at the Clinic of Vascular Surgery and Angiology at MHAT NHH EAD, Sofia. In 2016, Dr. Nikolov successfully defended his PHD thesis on "Opportunities to reduce the overall risk in the surgical treatment of carotid stenosis", and awarded the educational and scientific degree "Doctor" in "Cardiovascular Surgery" (Certificate № 11/18.01.2016). Dr. Nadelin Nikolov has a recognized clinical specialty in Vascular Surgery since 2014 and a Certificate of Professional Qualification in Endovascular Vascular Surgery since 2015. In the course of his professional development he participated in numerous

international and national scientific forums, as well as scientific publications (over 35) directly related to the scientific specialty and its practical application.

Dr. Nikolov specializes in the following areas: endovascular therapy of aortic aneurysms, peripheral and carotid arteries; mini-invasive endovenous procedures and critical ischemia of the limbs in leading centers in the field of endovascular, vascular surgery and phlebology in Europe.

### **Research activity**

Dr. Nikolov has submitted for review 35 scientific papers: a dissertation for obtaining an educational and scientific degree "Doctor" "Opportunities to reduce the overall risk in surgical treatment of carotid stenosis" and a monograph in Bulgarian "Carotid revascularization". He is a co-author in the development of a manual for methodological purposes and author or co-author of 32 scientific publications (27 full-text publications and 5 announcements at scientific forums abroad with published abstracts). Dr. Nikolov presented 5 citations in the Web of Knowledge and Scopus databases. He participates as a lecturer at prestigious scientific forums in his home country Bulgaria and abroad.

As a consequence of his rapid professional development and various interests, Dr. Nikolov is a member of many Bulgarian and international scientific societies: Bulgarian National Society of Vascular, Endovascular Surgery and Angiology, Bulgarian Association of Thoracic, Cardiac and Vascular Surgery, National Society of Phlebology and Angiology, Bulgarian Cardiovascular Association, European Society for Vascular Surgery, International Society of Endovascular Specialists, The Balkan Venous Forum.

He was awarded second prize for best clinical case at the Fifth Scientific Conference of the Bulgarian Cardiovascular Association - November 27-29, 2015, Sofia.

### **Teaching activity**

Dr. Nikolov has an average annual workload of 250 hours. He participates in the training of specialists in vascular surgery and angiology with thematic practical classes and lectures, and has a major role in commissions for conducting colloquia in vascular surgery and angiology.

### **Diagnostic and therapeutic activity**

Dr. Nikolov is an established physician with 18 years of experience as a vascular surgeon. He has excellent ultrasound diagnostic skills of the abdominal aorta, peripheral and carotid arteries, as well as the diagnosis of pathology in the deep and superficial venous system of the limbs. This enhances his work as a surgeon and endovascular specialist. Dr. Nikolov is a complex vascular surgeon who applies innovative approaches in both open surgery and endovascular procedures. He introduced and used for the first time in Bulgaria two of the minimally invasive methods for the treatment of reflux in the great superficial vein. He is the first certified vascular surgeon in Bulgaria responsible for the implantation of a Supera stent. All

of the aforementioned accomplishments and qualities make Dr. Nikolov a recognizable and respectable figure among the community of vascular specialists in his home country.

### **Scientific contributions**

Dr. Nikolov presents various research and publication activities with contributions of scientific and scientific-practical value in several main areas:

1. In the field of cerebrovascular diseases he studies:

- the prevention, diagnosis and therapy (drug, carotid endarterectomy - CEA, and carotid stenting - CAS) of stroke caused by extracranial carotid stenosis;
- the role of classical risk factors in the pathogenesis of CVDs based on the ten-year experience of the Clinic of Angiology and Vascular Surgery;
- the diagnostic value of non-invasive imaging of carotid atherosclerosis - color duplex scanning (CDS), digital subtraction angiography (DSA), computed tomography angiography (CT) and magnetic resonance angiography (MPA), to determine the percentage of carotid stenosis.
- all modern possibilities for reduction of the general risk in CEA both in isolated carotid pathology and against the background of multifocal atherosclerosis (MFA). The role of CDS, antiplatelet prophylaxis and routine shunting to reduce perioperative risk has been confirmed.
- all aspects of the diagnosis and indications for the treatment of extracranial carotid stenosis, supported by data from recent studies and guidelines.
- the "path" of treatment of the patient - from diagnosis, through the intervention (CEA or CAS) to treatment and follow-up;
- concomitant involvement of different vascular basins, which worsens the prognosis and is associated with a higher rate of complications. They are significantly reduced with modern methods of treatment of MFA (endovascular and hybrid surgery), which contribute to improving the prognosis and quality of life of patients.

For the first time in the monograph "Carotid revascularization" the two types of treatment are described - operative and endovascular, but not as competing approaches, but on the contrary - as complementary methods in the arsenal of the modern vascular surgeon. Exposed in detail are all types of surgical techniques with their advantages and disadvantages, types of anesthesia, methods of intraoperative monitoring of cerebral perfusion, as well as early and late complications. The rapid development of carotid stenting, the types of consumables and stents, protection systems, as well as variations of the endovascular technique itself are covered in detail. The ten-year experience of the clinic in the surgical treatment of carotid stenoses is described and the results are extremely good and comparable with the world practices.

2. In the field of peripheral arterial disease (PAD) for the first time in Bulgaria was shown comparative analysis of the three treatment methods for aorto-iliac occlusive disease: angioplasty with stenting, hybrid surgery and open surgery. Similar results were observed, but endovascular therapy brings additional benefits - shortened hospital stay, less or no surgical trauma, rapid patient recovery and return to normal life. In the presented Clinical Guide, experts in the field of arterial diseases have collected, processed and presented the published evidence for diagnosis, treatment and prevention of PAD. The place of beta-blockers in the treatment of patients with PAD has been studied. A review of the current literature on antithrombotic therapy and prevention of this disease has been made. Clinical cases of application of endoprostheses in emergency and life-threatening conditions in vascular surgery, open surgery in case of rupture abdominal aneurysm into retroaortic left renal vein were described. The role of hybrid procedures in patients with thromboangiitis obliterans was also discussed. Emphasis is placed on the features of PAD in diabetics, medical and invasive (open surgery or endovascular) treatment of diabetic foot, as well as factors that determine which one to choose for each individual patient. The practice and the X-ray dose of the patient in endovascular and hybrid revascularization of the lower extremities were also studied.

3. In the field of diagnosis and treatment of deep vein thrombosis (DVT), clinical cases have been reported for the first time in several publications such as mechanical or pharmacomechanical thromboaspiration after catheter thrombolysis with tPA has been performed in acute symptomatic proximal DVT threatening with phlegmasia cerulea dolens. This leads to rapid pain relief, reduction of edema, prevention of pulmonary thromboembolism, recurrent venous thrombosis and reduced development of postthrombotic syndrome. The role of direct oral anticoagulants as an increasingly common alternative to traditional anticoagulant therapy and their preferred establishment by physicians and patients is considered.

4. In the field of diagnosis and treatment of varicose veins introduces and uses for the first time in Bulgaria two of the minimally invasive methods for treatment of reflux in the great superficial vein - cyanoacrylate embolization and mechano-chemical ablation. One of the publications reviews the modern invasive treatment of varicose veins.

5. In the field of diagnosis of rare vascular diseases, the role of non-invasive imaging methods in the diagnosis of Takayasu's arteritis with bilateral aneurysms and carotid artery stenosis is discussed.

Dr. Nikolov meets the requirements of NACID with a scientometric indicator of 478 points within a minimum of 400 points for the academic position of "Associate Professor".

## **Conclusion**

In the competition Dr. Nadelin Nikolov presents himself as an exceptional specialist with a long medical, research and teaching experience. He has a recognized specialty in vascular surgery and professional qualification in Endovascular Vascular Surgery. He received an

educational and scientific degree "Doctor". Dr. Nikolov is an established professional, mastering and applying in practice all modern methods of diagnosis and therapy in vascular surgery. The candidate is a member of prestigious national and international societies in the field of vascular surgery. Its scientific output is completely sufficient in volume and content and significance, degree of novelty and justification of scientific achievements covers the requirements of the Law on Scientific Research and the Regulations on the terms and conditions for acquiring scientific degrees and holding academic positions in MHAT NHH of the academic position "Associate Professor". This gives me a reason to give a positive assessment and to propose to the esteemed members of the Scientific Jury to vote positively Dr. Nadelin Krasimirov Nikolov, MD to take the academic position of "Associate Professor" in Vascular Surgery, for the needs of the Clinic of Vascular Surgery at MHAT NHH JSC.

20.05.2021

Prepared the opinion:

Sofia

  
/ Prof. Dr. Detelina Lukanova, MD /