

# OPINION

by

**Assoc. Prof. Dimitar Stefanov Karastatev, MD, PhD**

Member of the Scientific Jury appointed pursuant to Order No. R-109-312/20.07.2021 for enrolment with the right to defence and Order No. R-109-204/03.06.2026 of the Rector of the Medical University of Varna, concerning the procedure for the award of the Educational and Scientific Degree **Doctor** to the candidate **Dr Tsvetan Hristov Zhelev**

## **Dissertation Title:**

**"Concomitant Carotid Pathology in Patients Undergoing Invasive Cardiac Diagnostics"**

The dissertation thesis submitted by Dr Tsvetan Zhelev entitled "*Concomitant Carotid Pathology in Patients Undergoing Invasive Cardiac Diagnostics*" represents an extensive study involving 299 patients with coronary artery disease and/or cerebrovascular disease. The author is a specialist with substantial clinical experience who applies both invasive and non-invasive methods for the assessment of the carotid and coronary vascular systems.

Dr Zhelev formulated five research objectives. Within this selected hospital cohort, the relationships between coronary and carotid pathology could be thoroughly investigated. It should also be noted that a considerable proportion of the examinations were performed under emergency conditions.

The stratification of patients according to the severity of carotid disease (Groups A, B, and C) and coronary disease (Groups D and E) provided an opportunity for a comprehensive comparative analysis. The results demonstrated that arterial hypertension was the most prevalent cardiovascular risk factor. From my perspective, one of the original aspects of the study is the assessment of hypertension severity according to the number of antihypertensive medications administered.

Through the comparative analysis of risk factors across the different groups, the author successfully identified the clinical profile of patients with a high probability of concomitant carotid and coronary pathology.

The analysis of the advantages and disadvantages of additional carotid angiography and digital subtraction angiography (DSA) performed during invasive coronary diagnostics is both appropriate and valuable. Dr Tsvetan Zhelev supports the view that these diagnostic procedures provide significant benefits in patients at high cardiovascular risk.

Particularly impressive is the diagnostic algorithm developed for the detection of carotid atherosclerosis in patients with coronary artery disease.

Dr Zhelev formulates five conclusions that correspond directly to the objectives of the study and appropriately notes that prospective follow-up investigations in a subset of the examined population would be beneficial.

I fully agree with the original scientific and scientific-applied contributions presented in the dissertation and believe that the work should be further disseminated through additional scientific publications. The experience gained from this large-scale and highly relevant study, together with its conclusions, has the potential to improve the individualisation of treatment strategies in a substantial number of patients.

The successful completion of the research objectives and the achievements of the dissertation were undoubtedly supported by the scientific supervisor and by the staff of the Second Department of Cardiology at St Marina University Hospital, Varna.

### **Conclusion**

I am fully convinced that the dissertation thesis submitted by Dr Tsvetan Zhelev satisfies all requirements for the award of the Educational and Scientific Degree **Doctor**.

I sincerely hope that the opinion expressed herein will be shared by the other distinguished members of the Scientific Jury.

**23 June 2026**

Заличено на основание чл. 5,  
§1, б. „В“ от Регламент (ЕС)  
2016/679

**Assoc. Prof. Dimitar Stefanov Karastatev, MD, PhD**