

## **Opinion**

by Prof. Dr. Boyan Dobrev Balev, MD  
Internal member of scientific jury according to  
Order P-109-160/24.02.2023 of the Rector of MU-Varna  
Imaging Diagnostics Clinic  
UMBAL "St. Marina AD Varna,

of **Dr. Pavel Ivelinov Abushev**  
assistant  
Department of Surgical Diseases, Faculty of Medicine  
Medical University Varna

of the dissertation work for the acquisition of the scientific-educational degree  
"Doctor", Doctoral program: "Urology"  
Field of higher education: 7. "Health care and sports"  
Professional direction: 7.1. "Medicine"

### **"ROLE OF MULTIPARAMETER NUCLEAR MAGNETIC RESONANCE/ULTRASONIC- GUIDED TRANSRECTAL FUSION BIOPSY FOR THE DIAGNOSIS OF PROSTATE CARCINOMA"**

Research supervisor: Prof. Dr. Deyan Anakievski, MD

#### **1. Significance of the problem and formulation of the goal and tasks**

Prostate cancer is one of the most common malignancies in the human population. It is the most common malignant disease in elderly men, which is why its social importance is great. Therefore, every successful experience aimed at this topic contributes to the improvement of diagnosis, treatment and prevention of the disease.

The aim of the clinical trial is to investigate the application of the Fusion biopsy in the diagnosis of prostate carcinoma. It is clearly formulated, marks the framework of the

scientific work and contains the specific research methods. It requires sufficient clinical material and experience that the dissertation student possesses.

To achieve the goal, 5 tasks are set, which are logically connected, specific, clearly formulated and fully cover the necessary research actions to achieve the goal. They reflect the modern approach of the dissertation in the development of the topic and the inclusion of new techniques and approaches in the field of prostate carcinoma diagnostics.

## **2. Structure of the dissertation**

The dissertation has a classic structure. It is written in 124 pages along with the bibliography.

The scientific work contains the following sections: literature review (presented in two sections), aim and tasks, material and methods, results, summary and conclusions, contributions, publications and bibliography. The dissertation contains 14 tables and 25 graphs.

The proportions between the individual sections are optimal and generally follow the logic of the set tasks and purpose, and the conclusions naturally arise from the own results, the statistical processing of the data and the discussions

## **3. Literary awareness of the doctoral student**

The current literature review is presented in two parts, totaling 57 pages and includes 194 literature sources. Several consecutively related sections are devoted to all aspects of the nature, epidemiology, and diagnosis of prostate carcinoma. The available publications dedicated to the current level of diagnosis of the disease are studied in detail and the results of large clinical studies on the advantages and limitations of different diagnostic methods are presented. The manner in which the biopsy procedure is performed is essential to its accuracy, highlighting the advantages of fusion biopsy.

The conclusions of the literature review are presented in the "Discussion" section.

## **4. Consistency between the objective, the results and the conclusions**

There is a logical correspondence between the objective, the results obtained, the discussion and the conclusions drawn. The own results and discussion are set out in 28 pages, detailed and illustrated, following the course of the set tasks.

The study included 167 patients who underwent transrectal Fusion biopsy over a 4-year period. Forty-four of all patients with fusion biopsy-proven prostate carcinoma had negative results from previous blinded biopsies.

#### **5. Analysis of conclusions and contributions**

The dissertation has 11 conclusions that summarize and systematize the results of the study.

The results of the dissertation have a confirmatory contribution to the optimization of the diagnostic process and reduction of complications in prostate cancer. The contributions reflect the results obtained, reinforcing the place and role of the complex interdisciplinary approach in the comprehensive evaluation of prostate carcinoma.

#### **6. Publications and scientific events**

The results of the research on the topic have found a place in 4 full-text publications. Dr. Abushev is the first author of one publication.

#### **7. Critical Notes**

The publications cited in the bibliography under numbers 14 and 17 are essentially journalistic works and should not be in the list of used literature. In many places, the publications cited in the text in brackets, are indicated not by the names of the authors, but by the titles of the publications (p. 10, etc.). The review does not need to be presented in two sections.

#### **8. Conclusion**

Dr. Abushev is a young and promising specialist with serious scientific interest. I strongly recommend to the members of the esteemed jury to award the educational and scientific degree "doctor" to Dr. Pavel Abushev for the dissertation work "Role of multiparametric nuclear -magnetic resonance/ultrasound-guided fusion biopsy for the diagnosis of prostate carcinoma".

15.04.2023

Varna

Signature:

