STATEMENT

by

Prof. Dr. Krasimir Prodanov Yanev, PhD

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of the dissertation work by

Dr. Pavel Ivelinov Abushev

Department of Surgical Diseases

Medical University, Varna

University Hospital "St. Marina", Varna

for the award of a scientific and educational degree

"PhD"

As a member of the scientific jury appointed by the order of the Rector of Medical University-Varna № P-109-160/24.02.2023 and protocol of the Faculty of Sciences № 82/20.02.2023 in the field of higher education 7. "Health and Sport", professional field 7.1 "Medicine" and doctoral program "Urology", of the dissertation for the award of the scientific and educational degree "Doctor".

Topic of the thesis: Role of multiparametric magnetic resonance imaging/ultrasound guided transrectal fusion biopsy for the diagnosis of prostate cancer.

Brief introduction of the candidate

Dr. Pavel Ivelinov Abushev graduated from high school in 2010 in the First Language High School - Varna. He finished his higher education in 2016. at Medical University "Prof. Dr. Paraskev Stoyanov" - Varna, specialty "Medicine". In 2016 Dr. Abushev was appointed as a resident doctor at the Urology Clinic of "St. Marina" UMHAT - Varna, where he still works as a urologist. In 2017 was appointed as a full-time assistant in the educational sector of urology at the Department of Surgical Diseases of the Medical University of Varna. In 2017 he began specialization in urology at "Sveta Marina" UMHAT-Varna. He successfully passed the specialty exam in 2022.

Dr. Abushev's dissertation "Role of multiparametric magnetic resonance imaging/ultrasound guided transrectal fusion biopsy for the diagnosis of prostate cancer" is dedicated to prostate cancer and the current opportunities for accurate diagnosis.

Dr. Abushev's dissertation work complies with the requirements for structure and volume set out in the regulations of MU-Varna. The proportions between the main parts are

respected: abbreviations used, literature review, aim and objectives, materials and methods of research, results, discussion, conclusions, contributions and bibliography. The dissertation contains a total of 130 pages, illustrated with 25 figures, 14 tables and 15 photographs. The bibliographical reference includes 194 titles, of which 19 are in Cyrillic and 175 in Latin. Important is the experience of the Bulgarian scientific teams that have worked and are working on the problems addressed in the thesis.

The aim is clearly stated, namely to investigate the application of magnetic resonance imaging/ultrasound-guided fusion biopsy for the diagnosis of prostate cancer using retrospective analysis.

The dissertation objectives were to analyze patients with histologically verified prostate cancer in terms of anesthesia used, PSA measured, previous prostate biopsy performed, and digital rectal examination results and PI-RADS category. To analyze the volume of the biopsied prostate, the materials collected from the patients (including the ratio between target and systemic materials), the ratio between positive and negative samples, and the comparison between ISUP grade and PIRADS score, in patients with histological result adenocarcinoma. To analyze the clinical stage of prostate carcinoma in patients with malignancy and the localization of the tumor in the gland. To analyze the length of hospital stay and presence of febrility in patients after transrectal fusion biopsy.

The materials used to develop this dissertation are the results of a clinical study of 167 patients who underwent fusion biopsy due to elevated or gradually increasing prostate-specific antigen PSA and/or positive digital rectal examination findings. Inclusion criteria for the study were specified. The patients were hospitalized in the Clinic of Urology of St. Marina University Hospital, St. The patients were hospitalized in the Clinic of Marina Hospital, Varna, for the period 2019-2022. Anamnestic, clinical, laboratory and imaging data were used for screening and diagnosis before undergoing biopsy examination. All patients underwent MRI within 3 months prior to fusion biopsy, and the study was performed according to a pre-established protocol. A total of 79 biopsy patients had histologically proven prostate adenocarcinoma.

The results were obtained on the basis of frequency distribution, descriptive analysis, correlation analysis, general population, statistical observation analysis and synthesis. A number of indicators were analyzed: age, previous biopsy studies, total and free PSA, PSA density, anesthetic risk stratification by ASA, gland volume, palpatory findings on digital rectal examination, PI-RADS grade of the lesion, and histological result, Gleason score and ISUP grade in patients with adenocarcinoma of the gland, ratio between systemic and targeted puncture specimens, ratio between positive and negative specimens, lesion size, clinical T stage in cancer patients, hospital stay and complications.

In summary and conclusions, the dissertation scientifically discusses the results studied, aiming to objectively draw reliable conclusions on the set tasks. The conclusions are a total of 10 and are based on the overall results of the literature review, the results of the autor and the discussion.

The contributions drawn by Dr. Abushev are 4 in total and are of scientific and applicable nature.

The publications submitted by the PhD student are four in total and cover the required publication activity. The submitted abstract is correct, qualitatively made, according to the requirements and reflects the dissertation work faithfully.

In conclusion: the dissertation work of Dr. Pavel Ivelinov Abushev "Role of multiparametric magnetic resonance imaging/ultrasound guided transrectal fusion biopsy for the diagnosis of prostate cancer" is presented in a complete and well-structured form, meeting the requirements of the Law for the Development of Academic Staff in the Republic of Bulgaria, the regulations for its application and the regulations of the Medical University - Varna. Taking into account the actuality and significance of the topic, the volume and the manner of conducting the study, the processing of the material, the conclusions, the contributions of theoretical and applicable nature, I confidently declare to the members of the Scientific Council that I vote "for" (positively) the awarding of Dr. Pavel Ivelinov Abushev, the PhD "Doctor" of Urology.

18.04.2023 .....

Sofia Prof. Dr. Krasimir Yanev, PhD