REVIEW

from

Prof. Dr. Dimitar Grigorov Shishkov, Ph.D.

University Hospital, Plovdiv, Clinic of Urology; Thracian University, Faculty of Medicine, Stara Zagora

On the dissertation for the award of the educational and scientific degree "Doctor"

Specialty "General Medicine"

Author of the dissertation: Dr. Petar Atanasov Kosev

Topic of the dissertation: "Features, diagnostic approach and strategy in the treatment of

patients with pyonephrosis. Analysis of hospitalized patients for a 5-year period"

Form of doctoral studies: Ph.D. student in independent form

Scientific adviser: Prof. Dr. Valentina Madjova, Ph.D.

Information about the procedure

Dr. Petar Atanasov Kosev was enrolled as a doctoral student in an independent form of education by order of the Rector of the Medical University "Prof. Dr. Paraskev Stoyanov"-Varna, Prof. Dr. Krassimir Ivanov №R-109-206 / 24.06.2019

By order of the Rector of the Medical University "Prof. Dr. Paraskev Stoyanov"- Varna №R-109-38 / 20.01.2022. I have been selected as a reviewer and a member of the scientific jury regarding the competition for the award of the educational and scientific degree "Doctor"; Area 7. Health and Sports, Professional field 7.1. "Medicine" and doctoral program "General Medicine".

The competition is held in accordance with the requirements of The Law on The Development of The Academic Composition in The Republic of Bulgaria and the Regulations on the terms and conditions for obtaining scientific degrees and holding academic positions at the Medical University "Prof. Dr. Paraskev Stoyanov"- Varna.

To participate in the competition, the candidate has submitted all required documents and applications.

2. Biographical data related to the scientific and practical activity of the candidate

Dr. Petar Atanasov Kosev was born on April 25, 1984. in the city of Varna. In 1999 - 2003 graduated from the High School of Mathematics "Dr. Peter Beron" in Varna. He graduated in medicine in 2003-2009. at the Medical University - Varna, "Prof. Dr. Paraskev Stoyanov" Specialty "Medicine", Diploma series MUV N 000349; Registration number 000628 issued on 16.11.2009

In 2016 he successfully acquired a specialty in Urology, Diploma series MUV N 3699; Registration number 020050 issued on 22.02.2016.

He speaks four languages: English, Russian, German, and Italian.

Member of Bulgarian Medical Association; European Association of Urology (EAU); Bulgarian association of Urology; Ambassador of Erasmus program for Bulgaria; European Academy of Teachers in General Practice and Family Medicine (EURACT).

Dr. Petar Atanasov Kosev has a daily medical, diagnostic and surgical workload. His research interests are diverse and related to oncourology, diseases of the prostate gland, lower and upper urinary tract, reconstructive surgery, andrology, ultrasound, endourology and minimally invasive surgical techniques in urology. He has taken courses in Italy and Turkey.

The doctoral student has attached 3 publications related to the dissertation, which are sufficient. Total number of scientific papers, as an author and co-author, published in scientific journals and reports in scientific forums - 50. The scientific research and summaries of Dr. Kosev deserve sincere admiration and general support. In all publications the author's desire to emphasize and clarify the controversial and unclear points and to express his opinion on the issue is evident.

The dissertation contains 127 typewritten pages and is illustrated with 41 tables, 36 figures and one appendix. The list of cited literature includes 180 titles, of which 17 in Cyrillic and 163 in Latin.

The abstract is designed according to the rules and meets the requirements. Reflects the main structures and results in the dissertation.

Relevance of the topic and expediency of the set goals and objectives

There is no infectious disease that is not a current scientific topic in medicine - especially their complications. Any scientific search for the questions "How, why complications occur in upper urinary tract infections and why some manifest themselves and others do not" makes sense as a scientific topic. Worldwide, about 150 million people a year suffer from urinary tract infections, the most common of which is pyelonephritis. A particular problem is the improper treatment of the same, subsequent complications and antibiotic resistance. The goal of scientific work is clear and specific. To achieve this goal, six specific tasks have been identified, which are sufficient in number and clear and precisely formulated.

Degree of knowledge of the state of the problem and the literature review.

The literature review as a structure and content deserves a good evaluation and shows excellent awareness of the doctoral student on the researched problems. The author cites 180 scientific publications related to the set scientific goal. This is many publications, which speaks of the competence with which his results were analyzed and allowed the author to clearly formulate the purpose and specific objectives of the dissertation. The conclusions of the literature review emphasize the critical assessment of sporadic scientific research and the lack of a clear algorithm for the treatment of infections and their complications in our country. The author emphasizes the need for multicenter, randomized controlled trials and studies in individual hospital units to reveal new patterns of the pathological process, and published interesting case reports require increased attention from GPs and specialists in pre-hospital and hospital care. I believe that the dissertation of Dr. Petar Atanasov Kosev is dedicated to a bold goal, which will optimize the complex diagnostic and treatment behavior in these patients.

The object of the present study is a retrospective analysis of a total of 166 patients with pyonephrosis, hospitalized and treated at the Clinic of Urology of MHAT "St. Anna" AD, Varna for the period 01.01.2016. and 31.12.2020 incl., average age 61,26 (between 21 years and 85 years of age) who underwent surgical treatment by performing nephrectomy

and / or open drainage or placing renal drainage by percutaneous nephrostomy. Quite enough patients and a long enough observation period for the patients to carry out the study and draw the appropriate conclusions.

In the section "Methods" an in-depth analysis of routine clinical, laboratory and imaging studies was performed. Patient comorbidity has been reported, such as: hypertension (CB), ischemic heart disease (CHD), cerebrovascular disease (MSD), chronic obstructive pulmonary disease (COPD), diabetes mellitus (DM), chronic renal failure (CH)...

A descriptive characteristic was performed, which includes tables, graphs and summarizing numerical characteristics, such as tables, graphical images, summarizing numerical characteristics, based on which the statistical analysis was performed.

In "Own results" of the scientific work the deep analysis and illustration is impressive. Here are described in detail the demographic characteristics, the frequency of involvement of the kidney, the peculiarities of the clinical picture in different patients, the peculiarities of laboratory tests, features of imaging, renal malformations, and their complications in patients with pyonephrosis, pathoanatomical diagnosis, comorbidity, and ligament. and with the complication "pyonephrosis". The discussion of the results is in-depth and leads directly to the subsequent conclusions and the proposed algorithm for the diagnosis and treatment of patients with pyonephrosis.

The use of diagnostic and therapeutic algorithms in urological practice is a significant contribution to the timely and adequate treatment of this complication of upper urinary tract infections.

In the chapter "Conclusions" the author draws 10 conclusions, which are the result of scientific work. The conclusions made in the dissertation make the dissertation relevant and practically significant.

They are balanced and well formulated. I accept all conclusions.

The contributions of the dissertation are:

- 1. Original scientific nature 5.
- 2. Confirmatory character 4.

I accept the contributions of the dissertation of Dr. Petar Atanasov Kosev.

The presented dissertation is a systematic and detailed study of the main aspects in the clinic, diagnosis, and treatment of pyonephrosis on a national scale and is a building block in Bulgarian urological practice.

The dissertation is a trained specialist with professional experience and authority among urological circles.

CONCLUSION

The dissertation contains scientific and applied results, contributions of original and confirmatory nature meeting all the requirements of the Law on the Development of Academic Staff in the Republic of Bulgaria. The dissertation with the presented materials and results fully meets and are in accordance with the specific requirements of the Medical University "Prof. Dr. Paraskev Stoyanov"- Varna.

The doctoral student Dr. Petar Atanasov Kosev, with his dissertation confirms that he has in-depth theoretical and practical professional knowledge and skills in the scientific specialty of Urology.

In view of the above, I give a convincingly positive assessment of the dissertation, the abstract, the results achieved and contributions.

I propose to the esteemed scientific jury to award the educational and scientific degree "Doctor" to Dr. Petar Atanasov Kosev in the doctoral program in " General Medicine ".

28.01.2022 Plovdiv

Signature://////////(Prof. Dr. Dimitar Shishkon, Ph.D.)