

OPINION
from
Ass. Prof. Dr. Zhenya Ruseva Petrova, MD

Department of "General Medicine" Varna University

Regarding: dissertation work for awarding the educational and scientific degree "Doctor" Field of higher education: 7. Health care and sports

Professional direction: 7.1 Medicine

In relation to scientific specialty: General medicine

Of Dr. Raditsa Alexovska

On the topic "Clinical presentation and risk prevention for developing urinary tract infection in childhood"

Scientific supervisor: Prof. Dr. Valentina Madzova, d.m

Scientific consultant: Prof. Dr. Dimitrichka Bliznakova, MD

By Decision of the Chairman of the Scientific Jury and according to the Order of the Rector of MU-Varna No. P-109-449 of 18.11.2022, it was decided to present an opinion on the dissertation work of Dr. Raditsa Alexovska on the topic "Clinical presentation and risk prevention on the development of urinary tract infections in childhood" for awarding the educational and scientific degree "doctor" in the scientific specialty "General Medicine".

The current situation has been developed and presented according to the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria (ZRASRB), PPZRASD and the Rules for the Development of the Academic Staff of the University of Varna.

Brief biographical data of the doctoral student

Dr. Raditsa Alexovska is born on March 27, 1982, in the Republic of Macedonia. Graduated In 2006, with a master's degree in Medicine from the Medical University, Prof. Paraskev Stoyanov, Varna. In 2018, she acquired the specialty "General Medicine".

The doctoral student began her career in 2007 at ETAIPPMP "Dr. MARIELA MIHAILOVA" - VARNA, as a doctor.

From 2010 to 2015, was an assistant at the Department of Anatomy, Histology and Embryology, and from 2012 to 2015, she was a specialist in training in the same department.

In 2017, founded an outpatient clinic for Primary Care, where the practice is aimed at the whole family, and covering all patients with preventive examinations, children's consultations, and follow-up of chronically ill patients, mandatory and recommended immunizations. The doctoral student is fluent in Bulgarian and English.

Dr. Alexovska is a professional with in-depth knowledge in the field of General Medicine, works excellently in a team and with people of different nationalities, religions and social strata.

Significance and relevance of the developed topic: The dissertation work of Dr. Raditsa Aleksovska deals with a current and important practical problem of interdisciplinary importance. Urinary tract infections/UTIs/in childhood are a common problem in general medical practice. The clinical picture changes depending on the age of the child and the localization of the infection. Accurate and timely diagnosis in childhood and subsequent timely and appropriate treatment is important to prevent chronic diseases and their consequences in adulthood (eg hypertension, proteinuria and chronic kidney disease). UTI represent a major challenge for any physician, regardless of experience, and especially for the GP who first encounters the patient with the problem.

Volume and structure: The dissertation work of Dr. Raditsa Aleksovska was written on 169 pages, illustrated with 26 figures, 48 tables and 2 appendices. The bibliographic list is represented by 314 sources, of which 22 are in Cyrillic and 292 in Latin. It concludes with conclusions that support the need to research the dissertation topic. The issues and content of the work are dissertationable and are of interest not only to general practitioners, but also to a wider range of specialists in the field of clinical presentation and prevention of the risk of developing urinary tract infections in childhood.

The literature review consistently addresses the definition and classification of UTI in childhood.

The incidence, ethology, and pathogenesis of UTI are reviewed in detail. Dr. Alexovska shows in-depth knowledge of the Bulgarian and global experience in the assessment of the risk for the development of UTI, the clinical presentation and diagnosis, and the treatment of the problem under consideration.

Research methodology: The aim of the dissertation work is "to study the peculiarities of the clinical picture and course of UTI, as well as to identify the factors that make timely diagnosis difficult with a view to improving the possibilities of risk prevention for their development in childhood..".

To achieve it, the doctoral student has defined 7 main tasks for the achievement and:

1. To analyze data on the peculiarities of the clinical picture and the course of UTI in childhood, obtained from medical records.
2. To identify the most common risk factors for the development of UTI in childhood.
3. To analyze the therapeutic measures for UTI in childhood.
- 4 To determine the GP's approach to UTI in childhood.
5. To investigate the knowledge, attitude and practical skills of parents regarding UTI in children.
6. To study the sources of information and the need to develop and present informational materials to parents related to UTI in childhood in our country.
7. To develop an algorithm for behaviour in UTI in childhood to help GPs.

The design of the present study is cross-sectional, which combines a retrospective analysis of medical records (discharge letters) and a prospective one realized by means of two questionnaire surveys. The dissertation work was approved by KENY of the Medical University - "Prof. Dr. Parashev Stoyanov" - Varna with Protocol No. 94 of 25.06.2020.

The obtained results are presented in text and through 26 figures and 48 tables. The statistical treatment used is adequate. The discussion is thorough and well systematized. It is in this chapter that the good awareness and rich clinical experience of Dr. Alexovska is evident, as well as the possibilities for critical analysis of the obtained results. The presented own results are completely sufficient for the implementation of the tasks.

The conclusions are 14 in number and logically follow the obtained results. They are well worded, clear and to the point.

The exhibited contributions are 8 in number, and are divided into two groups:

Original scientific and applied contributions:

- For the first time in our country, a large-scale study was conducted on the current problems regarding UTI in childhood, including general practitioners and parents, with a view to establishing the most common reasons that make it difficult to make a timely diagnosis.
- We found that although parents indicate the GP as the main source of information on matters related to their child's health and in particular on UTI, the general judgment is that they receive insufficient information for them from GPs, regarding recommendations on what to they also monitor how to protect their children from the occurrence or recurrence of STIs.
- More than 50% of GPs in our survey support the idea that parental awareness in any form about early diagnosis and treatment of children with UTI is particularly important for timely care of children. Methods such as parenting courses, brochures and information from social networks are among the ideas that GPs point to as important for good medical practice.
- The main reasons we identified for more difficult detection, resp. delay in establishing UTI in childhood in primary care are: relatively low prevalence of UTI in children, lack of information among parents regarding recognition of the non-specific characteristics of the course of UTI in childhood, as well as difficult urine collection in young children

Contributions of a confirmatory nature

- Involving the GP or health care professionals in spreading the information to parents about childhood UTI is a good solution to prevent unreliable sources of information on the internet and is a major way to solve the most common problems regarding diagnosis, treatment and the prevention of urinary infections in children.
- We identified a need for hands-on training among GPs in primary care outpatient clinics on: new non-invasive urine collection methods, bag-sticking itself, clean-catch urine collection using the Quick-Wee method, as well as information on new biomarkers in the diagnosis of UTI.
- We developed an action algorithm in general medical practice for suspected UTIs and recurrent UTIs in childhood, which would be useful for every general practitioner.
- We developed rules of action in the form of a brochure and an educational poster, with the help of which GPs will inform parents about UTI in childhood.

Contributions are perfectly acceptable and reflect the meaning of the dissertation.

The publications in connection with the dissertation are five in number and cover the required publication activity of the doctoral student. The presented abstract is done qualitatively, according to the requirements and faithfully reflects the dissertation work.

Conclusion

The dissertation work of Dr. Raditsa Alexovska contains significant and original results, which are adequately presented in contributions of an original and confirmatory nature. The developed dissertation meets the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria (LAD).

All this gives me the reason to give a positive assessment ", for the acquisition of the educational and scientific degree "Doctor" to Dr. Raditsa Alexovska.

05.01.2023

Prepared the opinion:

Ass. Prof. Zhenya Ruseva, MD

