

## Opinion

By Assoc. prof. Dr. Stoyan Ivanov Pavlov, PhD

Head of the Department of "Dermatology and Venereology", at the Department of "Infectious Diseases, Parasitology and Dermatovenereology", Faculty of Medicine at the Medical University "Prof. Dr. Paraskev Stoyanov" - Varna. Member of the Scientific Jury, according to Order No. R-109-213/ 28.03.2023. of the Rector of the Medical University - Varna, in implementation of the Decision from a meeting of the Faculty Council at the Faculty of Medicine at the Medical University - Varna c Minutes No. 84/22.03.2023.

**Regarding:** Defense of a dissertation of Dr. Zhenya Stoyanova Borisova, PhD student at the Department of "Infectious Diseases, Parasitology and Dermatovenereology" on the topic "Clinical, diagnostic and therapeutic studies on common bacterial skin infections in childhood", with supervisor - Prof. Dr. Ilko Georgiev Bakardjiev, PhD, MD, by field of higher education: 7. Health care and sports, professional direction 7.1. Medicine and in the scientific specialty "Skin and Venereal Diseases". The dissertation work was approved and referred for public defense, after a hearing at a meeting of the Departmental Council - KS No. 15 of 30.03.2022, without a scientific jury voting, according to Art. 62 (1) item 2 of the PRAS of MU-Varna. After implementation of the recommendations made at KS No 24 / 10.03.2023, the doctoral student presented the final dissertation work and the Scientific Jury was voted on.

### **Brief data on the career development and qualifications of the doctoral candidate**

In 2009 Dr. Zhenya Stoyanova Borisova graduated in medicine from the Medical University of Varna with very good success, diploma series of the Medical University 000409, reg. No. 000654/ 16.11.2009. and began working as a doctor in the Department of Skin and Venereal Diseases of the "St. Marina" UMBAL-Varna. In 2013 began specialization in "Skin and Venereal Diseases" at the Department and Clinic of Skin and Venereal Diseases of the Medical University of Varna. Since 2015 Dr. Borisova is a lecturer at the Department of Skin and Venereal Diseases of the "Department of Infectious Diseases, Parasitology and Dermatovenereology" - MU- Varna. In 2018 is enrolled in an independent form of doctoral study with the topic of scientific development - "Clinical, diagnostic and therapeutic studies on common bacterial skin infections in childhood", with scientific supervisor - prof. Dr. Ilko Georgiev Bakardjiev, PhD, MD. At the end of 2019 Dr. Borisova acquired a specialty in skin and venereal diseases - certificate No. 4277, reg. No. 023416, MU-Varna. In 2011 Dr. Borisova specializes in "Hadassah" University Hospital, Jerusalem, Israel. There is completed a number of qualification courses in the field of aesthetic dermatology: fillers, botox and laser therapy. He is fluent in written and spoken Russian and English.

### **Structure of the scientific work:**

The dissertation contains 141 printed pages, of which 32 pages - literature review, aim and tasks of the study - 1 page, material and methods - 11 pages, results of own research - 41 pages, discussion of the results - 12 pages, conclusion - 3 pages, conclusions and contributions - 2 pages. Illustrated with 35

tables and 39 figures. It contains 26 pages - a bibliography with 339 titles - 12 in Cyrillic and 327 in Latin, reference to publications and participation in scientific forums related to the dissertation work - 1 page.

### **Evaluation of the structural parts of the dissertation work**

In the literature review (9-42 pages), the age-related changes in the skin microbiome are described in dynamics, the balancing role of the normal skin microflora is argued. Epidemiological factors and bacterial pathogens causing childhood skin infections are reviewed. Purulent diseases are subdivided into staphyloiderma and streptoderma, in accordance with generally accepted classifications. The diagnostic clinical and laboratory methods described in the review have a confirmatory character in relation to the etiological characteristics of the bacterial causative agents. A review of topical antiseptics and topical and systemic antibiotics sheds light on modern treatments for bacterial skin infections in childhood.

For the "goal of the dissertation" Dr. Zhenya Borisova has set herself "...to study and analyze the dynamics, demographic and risk factors, clinical, diagnostic and therapeutic aspects of common bacterial skin infections in childhood". Towards the set goal, the doctoral student goes through the implementation of six consecutive tasks, which are clearly and logically formulated. The "Department of Skin and Venereal Diseases" at UMBAL "St. Marina" EAD, city of Varna, Department of "Dermatovenereology" KIBPD - Faculty of Medicine, Medical University "Prof. Dr. Paraskev Stoyanov" - city of Varna, "Department of Social Medicine and Health Care", Faculty of Medicine, Medical University "Prof. Dr. Paraskev Stoyanov", city of Varna; "...the medical documentation (epicrisis, outpatient lists, laboratory tests) of 303 patients, divided into two groups - 154 patients with bacterial skin infection and those with other skin diseases - control group - 149;" for the period 2012 - 2018. The "methods" used are a retrospective analysis of documentation, clinical observation and laboratory analyzes (bacterioscopy, culture and determination of antibiotic sensitivity). The own "results" combine data from "...retrospective analysis according to different criteria of purulent dermatitis morbidity for the period 2012 - 2018 of pediatric patients on the territory of North-Eastern Bulgaria." The results are well and in detail visualized graphically with 35 tables and 39 figures. In "discussion" (pages 95-106), Dr. Zhenya Borisova makes a comparative analysis of the received clinical-epidemiological and laboratory data, based on which she reaches 6 main conclusions. Conclusion No. 1 defines the significant "frequency of bacterial skin infections in childhood on the territory of North-Eastern Bulgaria at 17.48% of the total pediatric pathology". Findings №№ 2,3,4 shed light on the "demographic and social structure of some common bacterial infections in children", "seasonality and risk factors for bacterial skin infections in children", and the localization and morphology of clinical changes. Conclusions №№ 5,6 indicate the high frequency of skin infections induced by *S. aureus* - 41.60% and the effectiveness of parenteral therapy combined with local application of fusidic acid. The "contributions" of the dissertation work are divided into original-1, scientific-theoretical-3 and scientific-practical and confirmatory-3. As an original contribution, the "For the first time in the country ... comparative analysis of the frequency, demographic and social structure of common bacterial skin infections in childhood with general pediatric pathology" is presented.

The abstract presented by the doctoral student meets the generally accepted requirements in terms of structure and reflects the dissertation work in a synthesized version.

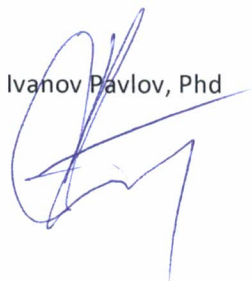
On the topic of the dissertation, Dr. Zhenya Borisova has presented 2 scientific publications in Bulgarian scientific journals, of which she is the lead author. In addition, the doctoral student has participated in 3 national scientific forums with three reports in a collective, as the first author.

**Conclusion:**

The presented dissertation work is a completed and well-structured scientific work, meeting the requirements for a scientific work, for the acquisition of the ONS - "doctor". This gives me the reason to vote positively and propose to the respected members of the Scientific Jury to award Dr. Zhenya Stoyanova Borisova the scientific degree "Doctor" in the Department of Higher Education: 7. Health and Sports; Professional direction: 7.1 Medicine; Doctoral program "Dermatology and Venereology".

23.05.2023:

Assoc. prof. Dr. Stoyan Ivanov Pavlov, Phd

A handwritten signature in blue ink, consisting of a large, stylized initial 'S' followed by a series of loops and a long horizontal stroke extending to the right.