

OPINION

by Ass. Prof. Dr. Filka Georgieva Georgieva

Member of the scientific jury appointed by Order No. R-109-213/28.03.2023.

of the Rector of the Medical University, Varna

Regarding: dissertation work for awarding the educational and scientific degree "Doctor" to Dr. Zhenya Stoyanova Borisova, doctoral student in an independent form of study in the doctoral program "Dermatology and Venereology", professional direction 7.1 Medicine at MU-Varna on the topic: "Clinical , diagnostic and therapeutic studies on common childhood bacterial skin infections'.

1. Relevance of the topic

Dr. Zhenya Borisova's dissertation is a comprehensive and innovative study of the clinical, diagnostic and therapeutic aspects of the more common pyodermas in pediatric practice. The development contains extensive information on the characteristics of the demographic, social and risk factors of skin infectious diseases in childhood, in the Varna region, mode of infection, etiological dominance, peculiarities in their course and comorbidity, summarizing and analyzing data from own clinical practice and an extensive epidemiological study is being done. The relevance of the presented research is also determined by the fact that until now there is a lack of systematized scientific data regarding differential-diagnostic criteria, as well as effective therapeutic agents, there is a lack of mandatory registration and prevention of these socially significant diseases. In this regard, the presented large-scale study provides valuable information on the prevalence, incidence, clinical variations and therapeutic challenges in diagnosing pyodermas in childhood. In this sense, the presented dissertation is a development not only of scientific, but also of scientific-applied value and significance.

2. Main characteristics of the dissertation work

The dissertation presented for opinion is developed on 141 pages and includes a text structured in the following sections: Introduction, Literature review, Aim and tasks, Material and methods, Results, Conclusions and Contributions. 39 figures and 35 tables, references to previous author contributions, publications and participation in scientific forums. The bibliographic reference includes a total of 339 literary sources, of which 12 are in Cyrillic and 327 are in Latin. The sections of the dissertation are well developed with a mostly practical focus. The title of the dissertation clearly and accurately reflects its content. The introduction logically and appropriately points to the importance of the problem under consideration, as the vectors on which it is structured include both information about pyodermas in general and their meaning through the prism of childhood.

The literature review has a volume of 32 pages and covers both basic sources and the most up-to-date critical articles on the presented issues. I believe that the structure of the literature review is correct and has a direct relation to the objectives of the dissertation and the tasks set. The information in it has been compiled after reviewing a considerable number of literary sources. This fact speaks of the doctoral student's excellent awareness of the scientific problem as well as his ability to summarize and analyze literary data. A good impression is also made by the fact that the author of the dissertation has indicated 12 developments of Bulgarian collectives: 10 in Cyrillic and 2 in English

The purpose of the dissertation work is clearly formulated, the six tasks set are developed and presented in a logical sequence and correspond directly to the set goal. The development is at a modern scientific level, implemented on the basis of the application of own models for analysis, enabling the achievement of the set goal and obtaining an adequate answer to the tasks solved in the dissertation work. The statistical methods and specialized software used are properly selected and allow qualitative analyzes and comparisons to be carried out based on the specific results obtained. The results are skillfully discussed and summarized in the conclusions of the dissertation. It should also be emphasized that they are richly illustrated.

Dr. Zhenya Borisova's research covers a six-year period, which makes it possible to track the problem precisely over time. A good structuring of the most common dermatoses in childhood, the relative presence of pyodermas in general and their examination by groups is especially valuable. In the dissertation, an in-depth analysis was made regarding gender and age dominance, the influence of seasonality, comorbidity and the role of previous therapy. Results of comparative analyzes of microbiological tests obtained by Gram stain, culture methods, and disc diffusion tests are reported. The antibiotic susceptibility of the isolated pathogens was also studied, which in the era of increasing antibiotic resistance I consider extremely important. Extremely up-to-date and directly related to practice are studies regarding the therapeutic application and effectiveness of local and systemic medications in the treatment of common bacterial skin infections in childhood.

The dissertation has a number of original, scientific-theoretical and scientific-practical contributions. The most significant should be highlighted: the first country comparative analysis of the frequency, demographic and social structure of common bacterial skin infections in childhood with common pediatric pathology, the analysis of the clinical picture of pyodermas in childhood, the innovative for Bulgaria analysis of the therapeutic application, effectiveness and safety of modern local and systemic medications in the treatment of pyoderma in childhood. To the credit of the author is the established significant antibiotic resistance in *S. aureus*, MRSA and *K. pneumoniae*, as the main causes of pyodermas in childhood.

From the scientific work thus presented, it is clear that the author has experience, broad awareness and good knowledge of the issues. The comparison with national and international experience in this field additionally expresses the critical assessment and contributes to highlighting the innovative methodologies described in the scientific work.

The formulated conclusions as a result of the development are logical and in accordance with the presented results.

Dr. Zhenya Borisova has presented two publications related to the topic, as well as three participations in forums.

The abstract reflects correctly and completely the content of the dissertation work.

3. Summary assessment of the dissertation work and conclusion.

Based on what was written earlier, I believe that the dissertation is characterized by relevance, independence, originality, theoretical and methodological soundness. I give a positive assessment to the dissertation work "Clinical, diagnostic and therapeutic studies on common bacterial skin infections in childhood". I recommend to the respected members of the scientific jury to award Dr. Zhenya Stoyanova Borisova the educational and scientific degree "Doctor".

05/03/2023

Varna



Member of the scientific juryCity.
Assoc. Prof. Dr. Filka Georgieva MD