

S T A T E M E N T

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Of a dissertation for awarding the educational and scientific degree “**Doctor**”,
Field of higher education 7. Healthcare and sport,
Professional direction 7.1. Medicine,
Doctoral program “Dermatology and Venereology”

Author: Dr. Zhaneta Hristova Zhelyazkova-Cheridjiyska

Form of doctoral study: Regular preparation

Department: Dermatology and Venereology, Medical University - Plovdiv

Topic: EPIDEMIOLOGICAL AND IMMUNOLOGICAL ASPECTS
IN PEMPHIGUS

Research supervisor: Assoc. Prof. Tsvetana Abadjieva, PhD

Department of Dermatology and Venereology, Medical University - Plovdiv

1. General presentation of the procedure

The set of materials presented to me on an electronic medium is in accordance with the procedure for acquiring the educational and scientific degree "Doctor" and the scientific degree "Doctor of Sciences" at MU - Plovdiv, described in the Regulations for Academic Development at MU - Plovdiv from 2021, and includes the following documents:

- Dissertation
- Abstract
- List and copies of scientific publications and communications on the topic of the dissertation
- Protocol from the Department Council on internal dissertation defense.

The doctoral candidate has attached 4 publications.

The documents meet the requirements for the implementation of the dissertation defense procedure.

2. Brief biographical data for the doctoral candidate

Dr. Zhaneta Hristova Zhelyazkova-Cheradzhiyska was born on November 23, 1994 in the city of Yambol. In 2019, he graduated with a degree in medicine at the Medical University - Plovdiv. Since April 2020, he has been conducting regular specialization in skin and venereal diseases at the Clinic for Skin and Venereal Diseases, UMBAL "St. Georgi" - Plovdiv and Department of Dermatology and Venereology, MU - Plovdiv. Since March 2020, she has been enrolled as a full-time doctoral student at the Department of Dermatology and Venereology. Since February 2020, she has been appointed as a part-time assistant in dermatology and venereology at the department of the same name at the MU - Plovdiv. To date, he has co-authored four full-text articles. She participated in scientific forums at home and abroad, at some of which she presented clinical cases and posters - Sofia Dermatology Days 2021 and 2022. She participated in a one scientific project. He is a member of BLS, BDD and EADV. He speaks Bulgarian and English.

3. Relevance of the topic

The dissertation is dedicated to some hitherto undeveloped aspects of the serious disease pemphigus in our country - epidemiology (with an emphasis on ethnicity), correlation between the level of anti-desmoglein antibodies and the severity of the disease, interaction between pemphigus and SARS-CoV-2 infection. The data from the conducted studies would contribute to the enrichment of knowledge about the disease. This makes the topic of the dissertation current, original and practically oriented.

The assigned tasks are expedient and related to the purpose of the dissertation work.

4. Knowing the problem

It is clear from the extensive literature review that the doctoral student knows the problem to a sufficient extent.

5. Research methodology

In his dissertation study, the doctoral student used clinical methods - history, examination and assessment of the severity of the disease, and laboratory methods - histological examination, direct immunofluorescence and enzyme-linked immunosorbent assay (ELISA). The methods used

are suitable for achieving the goal and obtaining an adequate answer to the tasks set to be solved in the dissertation work.

6. Characterization and evaluation of the dissertation work

The dissertation submitted for review is printed on a total of 150 standard A4 pages. It contains the following sections: contents (3 pages), abbreviations used (1 page), introduction (2 pages), literature review (50 pages), aim and objectives (1 page), material and methods (6 pages), results (17 pages), discussion (15 pages), conclusion (2 pages), conclusions (1 page), contributions (1 page), bibliography (29 pages), list of publications and participations in the subject (2 pages) and acknowledgments (1 page). Illustrated with 2 tables and 35 figures, incl. clinical photos.

The content corresponds to the main text. Abbreviations used are correctly reflected.

The introduction and overview are written in sufficient volume, which shows that the dissertation student has a good awareness of the problem being developed. The overview includes several sections - historical data, epidemiology, pathogenesis and risk factors, clinical picture, diagnosis, treatment and quality of life of patients.

The purpose of the dissertation work and related tasks are clearly and specifically defined.

A total of 109 patients with pemphigus who passed through the Skin and Venereal Diseases Clinic over a 12-year period (2010-2022) were included in the studies related to the dissertation. Ethnicity was analyzed in all patients, exposure to external risk factors was assessed in 68 patients and 70 healthy controls, the impact of the disease COVID-19 was studied in 65 patients, anti-desmoglein antibodies were examined by ELISA in 38 patients and 38 controls. In 40 patients, the activity and severity of pemphigus was determined using a specialized scale.

Own studies are presented sequentially, described comprehensively and illustrated with a sufficient number of tables, figures and clinical photos.

The epidemiological study found that pemphigus mostly affects patients over 40 years of age. 75% of the patients are Bulgarians, 21% - Roma and 4% - Turks. While the average starting age for Bulgarians is 65, it is 45 for Roma and 68 for Turks. From the appearance of the first symptoms to the hospitalization of the patients and the confirmation of the diagnosis, an average of 4 months pass. No statistically significant presence of risk factors for the occurrence of pemphigus was found.

Clinical studies show that the most common variant is pemphigus vulgaris - in 87% of patients. All patients were treated with corticosteroids, which in 60% of them were combined with cytostatics. In 3 patients, therapy with a biological preparation - rituximab (Mabthera) was administered.

In 29% of the studied 65 patients with pemphigus, infection with SARS=CoV-2 infection was present, which in 63% of them was managed with home treatment. Only 1 patient had an exacerbation of pemphigus after a relapse from COVID-19.

A study of anti-desmoglein antibodies using ELISA was performed in 38 patients with pemphigus. In them, the severity of the disease process was also determined using the PDAI scale. Anti-Dsg1 antibodies were positive in 74% of patients and anti-Dsg3 antibodies in 77% of patients. The test had a sensitivity of 84% and a specificity of 97%.

A significant correlation was found between disease severity as expressed by PDAI and anti-desmoglein antibody levels.

The relationship between ethnicity and disease severity was studied in 40 patients. While for Bulgarians the average values of the PDAI scale are 51 points, for Roma the average value is 92 points.

In the "Discussion" section, the dissertation student makes a thorough analysis of his own results and literature data.

At the end of the presentation, 9 conclusions were drawn.

The book collection contains 336 literary sources, of which 18 are in Cyrillic and 318 are in Latin. 46 (14%) of the sources were printed after 2018.

The dissertation is written in correct and easy-to-read Bulgarian language.

7. Contributions and significance of the development of science and practice

The dissertation student has defined a total of 7 contributions, which are distributed as follows: 2 original, 2 original for Bulgaria and 3 contributions of a confirmatory and theoretical nature. All contributions are welcome.

8. Evaluation of publications on the dissertation work

The list of scientific works related to the dissertation includes 4 real publications in national journals, 2 of which are referenced in Scopus. In 1 of the publications the dissertation student is the first author.

The number of real publications presented meets the required quantitative criteria laid down in the Regulations for Academic Development of MU - Plovdiv.

9. Personal participation of the doctoral student

The doctoral student was personally involved in conducting the research related to the dissertation work and their summarization and analysis.

10. Abstract

The abstract has a total volume of 47 pages, of which 33 pages are text and 14 pages contain figures and tables. The abstract summarizes the material included in the thesis project.

11. Critical remarks and recommendations

The dissertation student complied with the recommendations made during the internal defense. I have no critical notes and recommendations.

CONCLUSION

The presented dissertation contains scientific and applied results that represent an original contribution and meets the requirements of the Law on the Development of Academic Staff in the Republic of Bulgaria, the Regulations for its Implementation and the Regulations for Academic Development of the MU - Plovdiv.

The dissertation shows that the doctoral student Dr. Zhaneta Hristova Zhelyazkova-Cheradzhyska possesses in-depth theoretical knowledge and professional skills in the scientific specialty "Dermatology and Venereology", demonstrating qualities and skills for independent conduct of scientific research.

Due to the above, I give my *positive assessment* of the conducted research, presented by the above-reviewed dissertation work, abstract, achieved results and contributions and I propose to the honorable scientific jury to award the educational and scientific degree "Doctor" to Dr. Zhaneta Hristova Zhelyazkova-Cheradzhyska in a doctoral program in "Dermatology and Venereology".

16.11.2023.

Plovdiv

Reviewer:

(Prof. Dr. Hristo Døbrev, PhD, DMSc)

Заличено на основание
Чл.5 §1, б. "В" Регламент (ЕС)2016/679

