

**PEER REVIEW**  
**OF A DISSERTATION WORK**

Of **Tsveta Ivanova Kalinova, MD,**

entitled **“A study of hemostasis in erysipelas”**

for the acquisition of the educational and scientific degree of **“DOCTOR”**

in the field of higher education №7, ‘public health and sports’,

professional direction №7.1 ‘Medicine’ and scientific specialty of Dermatology and  
Venereology

**Scientific Advisor:**

Prof. Sonya Stoyanova Márina-Kirova, MD, PhD

**Reviewer:**

Prof. Nikolay K. Tsankov

**1. General presentation of the dissertation work and the PhD student**

Dr. Tsveta Ivanova Kalinova submits a full set of paper and electronic materials which is in accordance with the formal requirements of Medical University of Varna.

The PhD student submits a dissertation work elaborated on 97 pages; the review of the dissertation work is written on 52 pages; 4 scientific articles published in Bulgarian scientific journals; 1 scientific article published in international scientific journal; The PhD student has participated in scientific meetings with 6 reports among which 5 in national congresses and 1 in international congress.

**2. Actuality of the dissertation work**

The dissertation work **“A study on hemostasis in erysipelas”** explores the pathogenesis of the disease and its changes occurring in the hemostatic system in patients with erysipelas. 138 patients were examined, as 49 are control group of patients and 89 are patients suffering from erysipelas.

Currently, the clinical diagnosis of erysipelas is empirical. The aim of the author is to prove and to implement the study of some hemostatic indices and the proinflammatory marker - procalcitonin in order to distinguish inflammatory from vascular changes.

The dissertation work presents a current issue which is being studied for the first time in the country.

### 3. Understanding of the problem

The dissertation work and the given scientific articles and reviews demonstrate the professional skills, good training and knowledge of the PhD student.

The dissertation work is illustrated with 18 tables, 7 figures and 3 supplements.

### 4. Research methodology

In the dissertation work are used the following clinical methods - exploration of the medical records of the patients and assessment of their risk profile; laboratory methods - measurement of platelets, fibrinogen, active partial thromboplastin time, prothrombin time and procalcitonin. The statistical analysis of the received data is processed through descriptive analysis and parametrical and nonparametrical methods.

### 5. Characteristics and assessment of the dissertation work and its contribution

**The dissertation work** is structured according to the established requirements as follow: Introduction, Literature review, aim and purposes, material and methods, results and discussion, conclusion, contribution and list of references.

**The literature review** is written on 43 pages and contain the contemporary scientific data about erysipelas, hemostatic changes in erysipelas and some infectious diseases, recurrent erysipelas and procalcitonin.

**The aim** of the dissertation, together with the purposes of the study are well clearly defined and specifically formulated.

**The working hypothesis** supposes that intracellular localization of streptococci is a reason for their "invisibility" for the immune system and allow them to persist in the host for a long time. Thus, the above mentioned factors impose the need to explore the usage of anticoagulants in the treatment of erysipelas.

**Results** of the study demonstrate equal prevalence of erysipelas among women and men. The study establishes the average age of the erysipelas patients, the seasonal distribution it the disease, localization of the pathological changes, the severity and local charactersitics of the disease. In addition, prophylaxis with depot-penicillins is explored. Some hemostatic indices are measured.

**13 conclusions are made.** From a practical point of view, the conclusion number 10 has a practical significance. The given conclusion shows that there are none statistically significant difference in the level of measured indices and the severity of the disease. Consequently, the severity of erysipelas does not correlate with the hemostatic changes.

**There are 14 contribution points** as 9 of them are confirmative and 5 are original. Cotribution number 5 proves the originality of the dissertation work as it claims that this is the first study where the role of anticoagulants in pathogenesis of erysipelas is explored. In the current dissertation work there is no evidence of plagiarism. Clinical and laboratory data of the study is available.

**The list of references** includes 85 literature titles (27 in Cyrillic and 61 in Latin). 3 of the cited titles are from Medical University of Varna, making a good impression for the reviewer.

#### **6. Assessment of scientometric criteria**

The PhD student is a co-author in a textbook of Dermatology and Venereology for students ("Textbook of Dermatology and Venereology", Medical University of Varna, 2020), first author of one article in international scientific journal and 4 in Bulgarian scientific journals. Dr. Kalinova have active participation as a first author in one international and 3 Bulgarian congresses and conferences.

Dr. Tsveta Kalinova meets all required scientometric criteria and requirements of Medical University of Varna for academic development.

#### **7. Review of the dissertation work**

The review of the dissertation work is written on 52 pages and meets all requirements. All sections and contributions are presented in an abbreviated format.

#### **8. Conclusion**

The dissertation work of Dr. Tsveta Ivanova Kalinova on "A study of hemostasis in erysipelas" for the acquisition of the educational and scientific degree of "doctor" establishes the coagulation status in patients with erysipelas. The hemostatic status is well defined through minimal hemostatic indices.

The attempt of the PhD student to explore the hemostatic system and its changes in patients with erysipelas is an original contribution for the studies of erysipelas in Bulgaria. The presented dissertation work meets all requirements for academic development of Republic of Bulgaria.

I confidently give my positive assessment of this dissertation work, review of the dissertation, results and contribution and propose to the respected members of the scientific jury to award Dr. Tsveta Kalinova the educational and scientific degree "DOCTOR".

Date: 14.09.2021

Peer Reviewer:

/Prof. Nikolay Tsankov/

