

S T A T E M E N T

From **Assoc. prof. Dr. Elitsa Georgieva Deliverska-Alexandrova, DMD, PhD**

Department of Dental, oral and maxillo-facial surgery, Faculty of Dental medicine,
Medical University – Sofia

Member of the Scientific Jury, according to an order № P- 109-213/19.05.2022.
of the Rector of Medical University - Varna

Regarding: **award of the educational and scientific degree „Doctor, PhD“** in the Field of
Higher education: 7. Health care and sports; Professional domain: 7.2. Dental
medicine; PhD-programme: “Oral surgery”

Of a PhD-thesis: “Influence of chronic inflammatory processes of the teeth on the
mucociliary transport of the maxillary sinus “

Author: Dr. Gergana Diyanova Slivovska, DMD, a self-training PhD-student, procedure for
the award of the educational and scientific degree „Doctor (PhD)“, Faculty of Dental
medicine, Medical University – Varna.

Scientific supervisor: Prof. Dr. Tihomir Georgiev, DMD, PhD, DSc; Assoc. prof. Dr.
Mario Milkov, MD, PhD

General notes

The presented Statement has been written according to an order of the Rector of
Medical University – Varna № P-109-265/21.07.2020

The set of materials provided to me, related to the dissertation, is complete and is in
accordance with the Law on the Development of Academic Staff in Republic of Bulgaria and
the regulations for its implementation, as well as with the Regulations of Medical University -
Varna.

The doctoral student has attached 3 publications on the topic of the dissertation, which
quantitatively and qualitatively meet the legal requirements.

Short biography notes about the PhD-student

Dr. Gergana Diyanova Slivovska was born on 06.05.1986 in the town of Burgas,
Republic of Bulgaria.

– 2006 – completed secondary education in Public school “G. S. Rakovski”, Burgas

– 2011 – graduated as a Master of Dental medicine from the Faculty of Dental medicine, Medical University "Prof. Dr. Paraskev Stoyanov"- Varna

– since October 2011r. – a part-time assistant professor at the Department of "Oral and maxillofacial surgery" at the Faculty of Dental medicine, Medical University-Varna.

– 2012-2013 – an intern at the Clinic of Oral and maxillofacial surgery, University Hospital for active treatment "St. Marina"-Varna.

– 2013 – a full-time assistant at the Department of Oral Surgery, Faculty of Dental medicine, Medical University-Varna

– 2020 – a specialist in Oral surgery

Has conducted exercises with students from III, IV, V and VI courses in "Oral and Maxillofacial Surgery" in the Bulgarian and the English programme.

Dr. Slivovska is fluent in English.

Member of the Bulgarian Dental Association.

Notes and commenting on the presented documents

The PhD-thesis of Dr. Slivovska contains 174 pages, illustrated with 32 histograms, 137 tables, 17 graphs and 12 images. The bibliography consists of 169 sources, all of which are in Latin

Abstract

The abstract of the PhD-thesis is written over 80 pages, appropriately illustrated, fully corresponding to the content of the dissertation, accurately reflecting the key points in the field and presents in a synthesized form the main structural components of the dissertation. It has been developed in accordance with the requirements of the Law on the Development of Academic Staff in the Republic of Bulgaria and the regulations of Medical University – Varna.

Relevance of the PhD-thesis

The dissertation examines and analyzes an interesting and debatable problem for surgical practice related to the impact of chronic odontogenic infection on mucociliary transport of the maxillary sinus mucosa. The anatomical proximity of the teeth to the maxillary sinus is a prerequisite for a relatively easy spread of the infection and the resulting pathological changes in the sinus mucosa. Detailed knowing of the problem would enrich the knowledge on the issues under consideration and could lead to improvements in the

prevention, diagnosis and treatment of these diseases initially.

Understanding of the problem

In the presented dissertation, Dr. Slivovska shows in-depth knowledge of the developed topics and skills for independent research.

The text of the PhD-thesis is written in a good scientific language with small stylistic inaccuracies. The author has made a detailed and in-depth critical analysis of the literature, and at the end of the review it could be indicated that there is a need for a more detailed elaboration on the issue. The **literature review** clarifies a number of issues on the topic - emphasizes the importance of chronic odontogenic infection, perforations and foreign bodies for the etiology and pathogenesis of inflammatory diseases of the sinus mucosa and the importance of anatomical prerequisites for this.

The **purpose of the work and tasks** correspond to the topic and content of the dissertation. The aim is a logical conclusion from the analysis of the literature review. Tasks are set correctly, clearly formulated and are adequate in their scope and comprehensiveness.

Research methodology

The clinical material used for the implementation of the main goals and objectives is sufficient for the development of the dissertation.

The research methods, as well as the statistical methods for data processing, are optimally selected and have enabled the doctoral student to obtain sufficient qualitative and quantitative original and reliable results. The methodologies are modern, based on good medical practice and correspond to the set goal and tasks.

Characteristics and evaluation of the dissertation

The paper contains all the necessary sections for a dissertation. Results are comprehensively and correctly described, as the data from each indicator, previously laid down in the methodology of the scientific research, is analyzed in detail. The good visualization and the competent approach of the dissertation in the interpretation of the obtained data make an excellent impression.

The dissertation ends with conclusions based on the analysis of the results, discussion and summary. The **discussion** of the results was done correctly, presented as a discussion with other authors and a comparison with the results of their research.

Conclusions are optimally formulated, with an emphasis on the contributions of the dissertation and on their basis a number of important inferences for the clinical practice have been made. Chronic inflammation of the maxillary sinus (20 times) and surgical trauma (41 times) can lead to a reduction of the activity of the functional mucociliary apparatus and, accordingly, to reduce the efficiency of its drainage function; in the presence of bone less than 3 mm between the pathological focus of dental origin and the floor of the maxillary sinus, the chance of the process ascending is 96.7%, and when it is more than 5 mm, the infection can reach the mucosa of the maxillary sinus in 29.78% of cases. The most common causative agents have been identified, both in periapical lesions and in the pathologically overgrown mucosa of the maxillary sinus: Staphylococcus CNS, Peptostreptococcus, Prevotella sp., Fusobacterium spp., Alpha-hemolytic streptococcus and Porphyromonas sp.; in chronic inflammation of the maxillary sinus of odontogenic origin, the use of the following broad-spectrum antibiotics is most appropriate: Amoxicillin with clavulanic acid, Vancomycin and Ciprofloxacin.

Contributions and significance of the dissertation

Conclusions derived follow the results of the research and are undoubtedly significant for modern clinical dental practice.

Personal participation of the doctoral student

The conducted research and observations of patients and the resulting conclusions and contributions to the dissertation are a personal work for the dissertation.

Conclusion

The topic of the dissertation "**Influence of chronic inflammatory processes of the teeth on the mucociliary transport of the maxillary sinus**" chosen by **Dr. Gergana Diyanova Slivovska, DMD** treats actual and interesting problem for oral surgery. The scientific development is well structured, with properly selected methods and reliable results and theoretical and applied contributions in dentistry.

The presented PhD thesis meets the criteria for a dissertation, and the data from the results obtained and their interpretation, as well as the presented publications related to it, I accept as a personal work of the author. Dr. Slivovska is acquainted with the modern specialized literature, demonstrating qualities and skills for conducting independent research.

The dissertation contains original for the country applied scientific contributions and meets the minimum criteria of the Law on the Development of Academic Staff in the Republic of Bulgaria and corresponds to the specific requirements adopted in connection with the Regulations in Medical University - Varna.

To conclude: I give a positive assessment of the dissertation on the topic: „**Influence of chronic inflammatory processes of the teeth on the mucociliary transport of the maxillary sinus**“ and will vote with a “**YES**” for the award of educational and scientific degree "DOCTOR" on the scientific specialty “Surgical dentistry” to **Dr. Gergana Diyanova Slivovska, DMD**.

Sofia, 15.06.2022

Prepared the statement:



(Assoc. prof. Dr. Elitsa Deliverska, DMD, PhD)