DOCTOR REVIEW

To the Department of Periodontology and Dental Implantology at the Faculty of Dental Medicine at the University of Varna

<u>Regarding:</u> Procedure for awarding the ONS "Doctor" to Dr. DESISLAVA KIRILOVA STOYANOVA, doctoral student of self-study in the Department of Periodontology and Dental Implantology of the Faculty of Dental Medicine at the University of Varna, in the professional field of Dental Medicine and doctoral "Therapeutic Dental Medicine" program, according to Order No. R-109-392/03.10.2022

<u>Dissertation topic:</u> "Lifting the sinus floor with lateral access - imaging, clinical and experimental studies", with scientific supervisors Prof. Dr. Stefan Vasilev Peev, MD, Faculty of Dental Medicine at Medical University - Varna and Assoc. Dr. Nikolay Rumenov Sapundjiev, MD, Faculty of Medicine at Medical University - Varna.

REVIEW

from

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1. General description of the presented materials:

The documents presented to me by Varna Medical University and by the candidate, according to the Regulations for the Development of the Academic Staff at MU-Varna dated 18.10.2022, include the following documents:

- Resume, diplomas, protocols, declarations
- Order of the Rector of the University of Varna for opening a procedure and for the composition of the scientific jury
- Dissertation work
- Abstract in Bulgarian and English
- List of scientific publications on the topic of the dissertation
- Copies of scientific publications (the doctoral student has attached 3 publications).
 - 2. <u>Analysis of the personnel profile and brief biographical data for the doctoral candidate:</u>

Dr. Desislava Kirilova Stoyanova, is a doctoral student of independent training at Varna University of Medical Sciences with scientific supervisor Prof. Ph.D. Stefan Vasilev Peev, Ph.D. and Assoc. Dr. Nikolay Rumenov Sapundjiev d.m. She was born on June 10, 1986. She graduated from "Dental Medicine" in 2012 at the Medical University, Varna. After acquiring a specialty in Dental Implantology, he began working as an assistant in the Department of Periodontology and Dental Implantology at the Faculty of Dental Medicine of the Medical University - Varna. Since 2020, she is an administrative assistant at the same department. Dr. Desislava Stoyanova has qualifications in dental implantology and piezosurgery.

Dr. Desislava Stoyanova has a Master's degree in Health Management since 2015. Dr. Desislava Stoyanova is fluent in written and spoken English and Spanish, and

has the necessary computer literacy...

3. Relevance of the topic and appropriateness of the set goals and tasks:

The topic of the dissertation is relevant from the point of view of the possibilities for optimizing the augmentation procedure for raising the floor of the maxillary sinus with lateral access. Dr. Stoyanova's efforts to analyze the possibilities of endoscopic control in raising the floor of the maxillary sinus are commendable.

The topic is also relevant from the point of view of the continuous development and implementation of modern surgical methods with increasingly greater atraumaticity and efficiency. In addition, the topic of the dissertation work also has a great practical

application in dental implantology.

A set goal has a great practical application, as the tasks are directly related to the realization of the set goal.

4. Knowing the problem:

Dr. Desislava Stoyanova shows a very broad knowledge of the problem of alveolar bone reduction, in particular the reduction of residual ridges, and the problem of edentulousness. 5 Bulgarian and 175 foreign literary sources are cited. The dissertation examines in detail the development of the problem over the last 50 years, and subsequently creatively presented bone augmentation techniques, detailing the anatomy of the maxillary sinus from the perspective of implantology. Three-dimensional printing in dental implantology is discussed in a separate chapter. It should be noted that this part of the dissertation significantly exceeds the requirements for a dissertation, but at the same time it could later serve as a basis for writing a teaching aid in dental implantology.

5. Research methodology:

The material and methods in the dissertation work are presented comprehensively and are divided according to the main tasks that the dissertation student has set for

herself. The study was carried out in the period 2014-2021. The diagnostic and treatment methods used are described in detail.

The theoretical foundations of cone-beam computed tomography are described in great detail, and there is some repetition of the methods for the three tasks of the dissertation work, which could have been avoided in the presentation.

The statistical methods used are not described in detail, but only listed, although patient grouping is present. Ultimately, the dissertation is based on a retrospective analysis of 76 three-dimensional images of the upper jaw, an analysis of 20 three-dimensional models (40 maxillary sinuses) and a prospective analysis of 23 patients who underwent an endoscopically navigated augmentation procedure, with mostly factual statistical data.

6. Characterization and evaluation of the dissertation work:

The dissertation work presented to me by Dr. Desislava Kirilova Stoyanova consists of 125 pages with 44 figures and photographs, 23 tables and 6 appendices.

A paper is written extensively with the characteristics of a dissertation. The material on which the dissertation is built is sufficient from the point of view of the used statistical methods for data processing, but from a clinical prospective point of view, it can be recommended to be more extensive.

The conclusion is brief against the background of the detailed introduction and exposition. The conclusions overlap with the goals and objectives of the dissertation work.

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

Dissertation contributions are divided into original and confirmatory contributions. The major contribution of the dissertation is in the original idea of determining the visibility in different-degree endoscopy and comparing the trocar-guided and machine osteotome technique to create an opening for endoscopic access and obtuse the advantages of the machine technique.

8. Evaluation of publications on the dissertation work:

The doctoral student has attached 3 nos. publications, which minimally corresponds to Appendix of the Regulations for the Development of the Academic Staff at the MU - Varna.

9. Personal participation of the doctoral student:

The dissertation is entirely the personal work of the doctoral student except for the operating procedures themselves. The PhD student used the services of a statistician to process the results, which is explicitly noted in the dissertation.

10. Abstract:

The abstract is located on 75 pages and contains all sections necessary for an abstract. Also, the abstract fully reflects the results, contributions and conclusions established in the dissertation work.

11. Critical remarks and recommendations:

The dissertation does not specify exact data on the required size for the height of the available subantral bone in mm to serve as indications for an augmentation procedure. My recommendation is to clarify this important question from a practical point of view in further studies.

The author inaccurately uses the terms "inverse relationship" and "direct relationship" in determining the causal relationship between the width of the maxillary sinus and the height of the subantral bone present. It is correct to speak of "directly proportional relationship" and "inversely proportional relationship".

12. Personal impressions:

I do not personally know the PhD student and her daily activities.

13. Recommendations for future use of dissertation contributions and results:

The dissertation is recommended to continue scientific research in this important area of dental implantology.

I recommend that Dr. Stoyanova, after the relevant revision, publish the relevant part of the present work as a study guide for dental implantology specialists.

Conclusion:

After getting acquainted with the materials presented to me, I am convinced that the topic is relevant and of interest as a scientific work. The materials presented to me meet the minimum criteria for awarding the ONS "Doctor" to DR. of the Law on the Development of the Academic Staff in the Republic of Bulgaria (ZRASRB), the Regulations for the Implementation of the ZRASRB and the Regulations for the Development of the Academic Staff in the MU - Varna.

In conclusion, I propose to the honorable members of the Scientific Jury to vote positively for the awarding of the ONS "Doctor" to DR..

Prepared a review:

Assoc. Dr. Petar Ruey, D.M.

Stara Zagora, 20.11.2022 г.