

STATEMENT

from

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For dissertation entitled:

„Maxillary sinus floor elevation with lateral approach – imaging, clinical and experimental research“

of dr Desislava Kirilova Stoyanova

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for the award of educational and scientific degree "**Doctor**"

Relevance and significance of the dissertation topic.

The topic of the presented dissertation is popular and up-to-date, especially considering the highly increased requirements of the patients, regarding implant-prosthetic treatment and the expectations for aesthetic results. Achieving sustainable and lasting results is determined by the competent completion of the implant treatment.

The application of the various augmentation techniques to improve the implantation area is a hot topic for various researchers. Optimization of the procedures for maxillary sinus augmentation and elevation of the inferior wall, as well as the adequate control of the surgical procedure give the opportunity for predictable clinical outcomes.

Characteristics and evaluation of the dissertation

The dissertation consists of 136 written pages, illustrated with 23 tables, 44 figures and 6 appendices.

It is structured as follows: Introduction - 2 pages, Literary review - 23 pages, Aim and tasks - 1 page, Own research 68 pages – Materials and Methods - 30 pages, Results – 31 pages, Discussion – 7 pages, General conclusions - 2 page, Contributions - 2 page, References - 19 pages, Appendices – 8 pages, Publications related to the dissertation – 1 page.

The literature review is thoroughly written, revealing all the details regarding the aspects of bone deficiency in the area of implantation, the different methods of bone augmentation,

attention is paid to the anatomical features of the maxillary sinus, tissue regeneration biomaterials are discussed. Scientific knowledge in endoscopic methods for monitoring and control of sinus structures is presented. Attention is paid to digital technologies for three-dimensional printing and their application in dental implantology

Unsolved problems – the possibilities for optimizing the augmentation procedures for elevation the floor of the maxillary sinus are insufficiently studied and unclear

Aim and tasks - the aim of the dissertation is specific, clear and precisely formulated - „Maxillary sinus floor elevation with lateral approach – imaging, clinical and experimental research“, as 4 tasks are defined

Material – the material used is described in detail and accurately.

1st task. There are 76 3D images included, taken on a Planmeca ProMax 3D Max apparatus. The methodology and technical parameters of creating the images are described in details. The study period is well-defined.

2nd task. The imaging studies of 76 patients, who have undergone augmentation surgery with 108 sinuses and 161 dental implants placed in total, were included. Data regarding the technical parameters of the study are well given.

3rd task. The experiments with three-dimensional images of the maxillary sinus and the application of endoscopic techniques are accurately and precisely performed. The method is well described.

4th task. The methodology applied in the endoscopic control of the augmentation procedure for the maxillary sinus floor elevation is presented in details. The devices needed for the procedures are described well. Attention is paid to the postoperative follow-up of patients.

Own results - presented in details, and are formed correctly and in accordance with the tasks. The results are illustrated by correct and accurate use of tables and diagrams.

According to the 1st task - an analysis was performed according to the gender of the patient, according to age, according to the size of the defect and the position of the missing teeth; summary analysis and correlations are presented.

According to the 2nd task - an analysis was performed according to the method of application of implants in the conditions of subantral deficiency.

According to the 3rd task - an analysis was carried out in relation to the access needed for the endoscopic procedure, in relation to the depth of entry of the endoscope, and analysis in relation to the degree of observation with the endoscope.

According to the 4th task. An analysis of endoscopic control of maxillary sinus floor elevation surgery was performed.

Discussion. A detailed and accurate discussion of the results obtained by the author's research is presented.

Conclusion. The conclusion summarizes the goals achieved following the implementation of the given tasks.

10 conclusions were made, presenting in details the results of the conducted research and the implementation of the tasks.

Contributions are divided into 2 categories:

- original contributions – it is the first time endoscopically visible part of the field and the total observed area is investigated; for the first time trocar and a machine osteotome methods for creating an opening for endoscopic access are compared.

- confirmatory contributions – 6 confirmatory contributions are presented.

The presented contributions correspond to the aims of the dissertation work and reflect the implementation of individual tasks.

Publications and personal contribution of the PhD student. Dr. Desislava Kirilova Stoyanova has presented 3 publications on the topic of the dissertation, all of which are in English. The dissertation student is the leading author on all three publications.

The **abstract** of the dissertation is properly constructed and contains the results related to the tasks, conclusions and contributions. It fully corresponds to the dissertation.

Conclusion. Dr. Desislava Kirilova Stoyanova presents a dissertation on a current and significant topic in operative interventions in the maxillofacial area. The text is properly structured, the aim and tasks are clearly and precisely formulated, the methods used are correct, adequate and provide the performance and the completion of the tasks followed by getting promising results. The dissertation contains original and confirmatory contributions that are quite beneficial for the clinical practice.

The dissertation meets all the criteria of the laws and the regulations of Medical University-Varna.

I certainly give my positive opinion and assessment about the current clinical research, the dissertation text, the abstract, the results and contributions.

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