

STATEMENT

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Member of a scientific jury, according to order: P1021/25.04.23, in implementation of art. 30, para. 3 of the regulations for the implementation of ZRASRB, and in connection with the procedure for awarding the ESD "Doctor".

Regarding: dissertation work of Dr. Tasho Gavrailov Gavrailov on the topic: "Comparative evaluation of the results after vestibuloplasty of the mandible with the application of different grafts ", specialty: "Oral surgery", with scientific supervisor: Assoc. Prof. Ivan Chenchev, MD;

According to the procedure for the defense of his dissertation work, Dr. Tasho Gavrailov has submitted all the necessary materials, according to the Law on the Development of the Academic Staff in the Republic of Bulgaria and the Regulations for the Implementation of Law for Academic Staff Development of Republic of Bulgaria.

I declare that I have no conflict of interest with the author of the dissertation.

The dissertation submitted for my review is related to a current and socially relevant topic in the field of dentistry, aimed at the study and use of collagen xenografts containing porcine collagen types I and III and autogenous PRF (platelet-rich fibrin) membranes, with in order to improve the quality of life of patients. The techniques used so far, such as autogenous epithelial graft harvested from the mucosa of the hard palate have their drawbacks. An alternative was sought by a comparative analysis of the materials used as a graft for widening the attached gingiva by vestibuloplasty. This, on the other hand, determines the importance of the topic. The author of the dissertation set himself a clear goal of the study, namely: to compare the results of the increase of the attached alveolar mucosa after vestibuloplasty according to Clark with the combined use of three types of grafts, as well as to investigate the possibility of combining PRF with chlorhexidine, with in order to obtain a new generation of PRF membranes.

The dissertation consists of 145 pages, is structured according to the accepted requirements and includes the following sections: Abbreviations used (1 page), Introduction (2 pages), Literature review (22 pages), Aim and objectives (1 page), Materials and methods (32 pages), Results and Discussion (53 pages), Conclusion (3 pages), Conclusions (1 page), Contributions (1 page). 29 figures, 19 graphs and 5 tables are presented within the dissertation work. The evidentiary material is of high quality and reflecting the of the doctoral student's professional experience .

The bibliography includes 317 sources, 8 in Cyrillic and 309 in Latin. Much of the referenced literature dates post-2000.

The literature review commences with a section explaining vestibuloplasty. This part of the dissertation covers both foundational and modern research in biology and medicine, with a portion dedicated to historical data. The review pays particular attention to etiological factors leading to reduced prosthetic field dimensions in completely edentulous patients. It offers detailed explanations of various factor groups related to physiological processes in the alveolar bone, jaw bone anatomy, the masticatory complex, jaw bone diseases, and iatrogenic factors. It also extensively describes vestibuloplasty techniques and their modifications, pointing out their pros and cons. The final part of the review, which includes a literature analysis and identification of unresolved issues, is particularly impressive.

The working hypothesis, which posits that research on the use of xenogeneic collagen matrices and autogenous PRF membrane in procedures to widen the area with attached keratinized epithelium in edentulous jaws, is logical and well-constructed.

After the scheduled literature review, a clear and precise aim was defined, along with five main tasks for execution. These tasks perfectly align with the identified scientific problem and outline the scope of the planned research.

The Materials and Methods section contains an elaborate description of the methodology, reagents, and supplies used. It is notable for the large number of patients grouped and the detailed information on cell culture, microscopy, and statistical analysis performed. Each material and method are suited to the task at hand. This section showcases numerous photographs, revealing the work process in detail. The clarity and detail of the methodology illustrate the doctoral student's strong experimental training. The techniques are replicable by other researchers without needing additional sources.

The Results and Discussion section comprises five subsections detailing the data obtained, supplemented by high-quality photographs, tables, and graphs. The results and their discussion are organized according to the tasks formulated. The results are interpreted using data from existing scientific literature. After each discussion, conclusions follow, which clarify understanding and the derivation process.

Most of the experiments were conducted for the first time, underscoring the significant value of the research and the results obtained.

The study results indicate that the platelet-rich fibrin membrane (PRFm) and the collagen *xenomatrix* (Mucograft) can successfully substitute the autogenous epithelial graft when performing Clark's vestibuloplasty, provided the technique is appropriately modified. The resulting new type of PRF membrane – chlorhexidine – holds potential for use in oral surgery.

Based on the results, eight conclusions were formulated, all of which are logical and aligned with the set objectives. The "Conclusion" section also includes a summary of the results obtained.

The dissertation presents six original scientific and applied contributions. The findings of the conducted experiments were published in three scientific articles. The abstract accurately represents the main outcomes of the dissertation.

Conclusion:

The dissertation submitted for my review adheres to a high standard, employs contemporary methodologies, and performs an extensive analysis of the problem, thereby raising several pertinent questions. Therefore, in my personal view, it is a commendable piece of work. The research topic is current as it addresses a significant, socially relevant issue.

The study is modern, posing fundamental questions whose resolutions have direct implications and importance for dentistry, specifically oral surgery. This complex work contains scientific and applied results, constituting an original contribution to the field. This is particularly noteworthy as a considerable portion of the research was conducted for the first time within our country.

Given the above, I confidently provide a positive assessment of the research conducted and recommend the esteemed scientific jury to appropriately evaluate the dissertation work, thereby bestowing upon the doctoral student, Tasho Gavrailov Gavrailov, the educational and scientific degree of "Philosophy Doctor".

Sofia
28.4.2023

Задължено на основание
Чл. 5 § 1, б. "В" Регламент (ЕС) 2016/679
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/ Prof. Krassimira Todorova-Hayrabedyan, PhD, DSc /