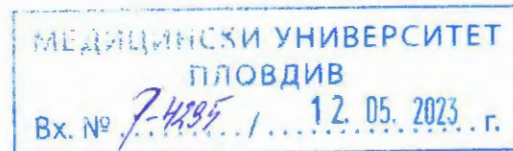


STATEMENT



By:

Assoc Prof. Deyan Zdravkov Neychev, DMD, DDS, PhD
Head of Oral surgery department,
Faculty of Dental Medicine, Medical University of Plovdiv,

member of the Scientific Jury, included by order No. R-1021/25.04.23 of the Rector of MU-Plovdiv of a dissertation for awarding the educational and scientific degree "Doctor" professional direction. 7.2 Dentistry 7. Health care and sports. PhD Program "Oral Surgery"

Author: Dr. Tasho Gavrailov Gavrailov.

Form of doctoral studies: full-time/independent training

Department: "Oral Surgery"

Topic: „Comparative evaluation of the results after vestibuloplasty of the mandible with the application of different grafts “

Scientific supervisor: *Assoc Prof. Ivan Lulchev Chenchev, DMD, DDS, PhD*

1. General presentation of the procedure and the doctoral student

- The presented set of materials on paper / electronic media is in accordance with Art. 70 (1) of I. Sec. Acquisition of educational and scientific degree "DOCTOR" and scientific degree "DOCTOR OF SCIENCES" at MU-Plovdiv; Regulations of MU-Plovdiv dated 28.01.2021 and includes the following documents:
- – Application to the Rector of MU-Plovdiv for disclosure of the procedure for the defense of a dissertation work
- – CV in European format with the doctoral student's signature
- – a notarized copy of a higher education diploma
- orders for enrollment in doctoral studies; for deduction with right of defense
- – an order for conducting an exam from the individual plan and a corresponding protocol for a passed exam or doctoral minimum in the specialty
- - minutes from the departmental council for the preliminary discussion of the pre-dissertation work and the decisions taken for the disclosure of the procedure and for the composition of the scientific jury
- - dissertation work
- - abstract
- – a list of scientific publications on the topic of the dissertation

- – copies of scientific publications
- – list of participations in scientific forums
- – list of noticed citations
- declaration of originality and authenticity of the attached documents
- other documents related to the course of the procedure

The PhD student has attached three publications.

Born on 15.05.1987 in the city of Plovdiv. He graduated from secondary education at the Mathematical High School "Academic Kiril Popov" in the city of Plovdiv with full honors. He completed his higher education - master's degree in dental medicine in 2014 at FDM Plovdiv. Acquires the specialty "Oral Surgery" in 2021 at FDM. Dr. Gavrailov is involved in teaching students in Bulgarian and English. Fluent in English with C1 level

2. Relevance of the topic

In recent decades, there has been a trend related to the aging of the Bulgarian nation. The increase in the social activity of the age group over 65 years is the reason for the increased aesthetic and functional requirements for the complete prostheses, which not a small part of these people wear. The classical techniques used to improve the stability of prostheses are associated with a number of disadvantages - recurrence of the condition and reduction in the size of the attached keratinized epithelium. The application of an autogenous epithelial graft is a technique with predictable results, but not always accepted positively by patients because of the creation of a second surgical wound. With the development of technologies and the creation of conditions for the study and use of collagen xenografts (based on porcine collagen type I and III) and autogenous PRF (platelet-rich fibrin) membranes, in order to improve the postoperative condition of patients and reanalysis of an alternative technique for vestibuloplasty, in which the disadvantages of the methods used in recent years have been reduced. This defines the topic as relevant and significant for practice

3. Problem awareness

In his dissertation work, Dr. Tasho Gavrailov demonstrates in-depth knowledge of the developed topic. The literature review is presented on 27 pages. The doctoral student has made a comprehensive review of the literature related to vestibuloplasty methods, the etiological factors determining the reduction of the prosthetic field in completely edentulous patients, indications and contraindications for vestibuloplasty, open and closed techniques, as well as the use of different types of transplants. An overview of a technique that has been relevant in recent years, namely the application of PRF - platelet-rich fibrin - a completely autogenous blood derivative, is reviewed. The literature related to the application of PRF combined with other drugs was studied. Last but not least, methods for examining the depth of the vestibule and the attached keratinized epithelium are discussed.

After the critical analysis of the literature, the dissertation student formulated the unresolved problems in the last part of the literature review.

The aim of the dissertation work developed by Dr. Gavrailov is precisely formulated: To compare the results of the increase of the attached alveolar mucosa after Clark vestibuloplasty with the combined use of three types of grafts, as well as to investigate the possibility of combining PRF with chlorhexidine, in order to obtain new generations of PRF membranes.

The realization of the set goal was achieved through the implementation of five set tasks. The defined tasks are:

1. To make a comparative clinical assessment of the results of Clark mandibular vestibuloplasty with the simultaneous use of an autogenous mucosal transplant from the hard palate and an autogenous PRF membrane.

2. Through the implementation of an author's hybrid technique, to make a comparative radiological evaluation of the results of vestibuloplasty of the lower jaw according to Clark with the simultaneous use of an autogenous mucous transplant from the hard palate and an autogenous PRF membrane.

3. To make a comparative clinical assessment of the results of vestibuloplasty lower jaw according to Clark with the simultaneous use of an autogenous mucous transplant from the hard palate and a xenogenic collagen matrix (Mucograft).

4. Through the implementation of an author's hybrid technique, to make a comparative radiological evaluation of the results of lower jaw vestibuloplasty according to Clark with the simultaneous use of an autogenous mucosal transplant from the hard palate and a xenogenic collagen matrix (Mucograft).

5. To create a new type of PRF membranes containing chlorhexidine and to make a comparative in vitro study of the characteristics of the newly obtained product and standard PRFm. To propose an algorithm for the application of the new type of membrane to expand the attached mucosa.

4. Research methodology

The detailed description of the methods used, as well as the design of the study, is impressive. A description of the used material and methodology was made for each of the 5 tasks set. This gives reason to accept the preparation of the doctoral student for conducting independent studies. The described methods show a serious connection with the set tasks. A study of postoperative pain was conducted, using the VAS as an instrument.

Of interest is the study using cell lines comparing two types of PRF membranes – standard and with added chlorhexidine. For statistical processing of the data, the software products of MS Office - MS Office Excel 19 and the specialized software for statistical data processing GraphPad Prism 8.0.1 were used. $p < 0.05$ was chosen as the level of significance at which the null hypothesis is rejected.

Results

The results obtained for each of the 5 tasks are described in detail and illustrated with the corresponding graphs, photographs and explained in tables. After each task, a discussion is presented, ending with conclusions, which helps to summarize the data at the end. The discussion is supported by sufficient literary data, which objectifies the obtained results to the maximum extent.

It is clearly presented that the use of platelet-rich fibrin membrane (PRFm) and collagen xenograft (Mucograft) is a good alternative to classical vestibuloplasty methods and autogenous epithelial graft methods. The developed PRF membrane - chlorhexidine has the potential for application in other operative interventions in the domain of oral surgery.

5. Characterization and evaluation of the dissertation work and contributions

Dr. Gavrailov's dissertation is properly structured, containing all the basic elements for presenting a dissertation: content, abbreviations used, introduction, literature review, aim and objectives, material and methods, results and discussion, summary, conclusions, contributions, bibliography and appendices. My presented dissertation is written in 145 pages. It is illustrated with 5 tables, 29 figures

and 19 graphs. The bibliography includes 317 literary sources, of which 8 are in Cyrillic and 309 are in Latin. The presentation is accessible and concise.

The personal studies and discussion are in a volume of 90 pages. The results are accurately and correctly described, fully analyzed with subsequent interpretation and visualization with tables and figures. Each task is discussed, and the author compares the results he obtained with data from the literature.

The critical analysis made allows Dr. Gavrailov to evaluate the methods used and define eight general conclusions. The formulated conclusions correspond to the set goals and objectives. Content analysis of scientific and scientific-applied achievements in the dissertation. Characterization of the main achievements.

Contributions of original scientific and applied nature are presented.

The obtained stable PRF membrane with added chlorhexidine – CHX-PRF – has potential for practical application.

6. Evaluation of the publications and personal contribution of the doctoral student

Dr. Gavrailov presents three publications related to the dissertation, which fully meet the legal requirements. The dissertation has also 3 participations in Bulgarian and international forums, where he is the leading author.

The conducted research and observations of patients and the resulting results, conclusions and contributions in the dissertation work are the personal work of the author.

7. Abstract

The content and quality of the author's abstract corresponds to the developed work and is made according to the requirements of MU-Plovdiv. It has the following parts: introduction, aim and tasks, materials and methods, results and discussion, conclusions, contributions and publications related to the dissertation work. It reflects the main results achieved in the dissertation, the conclusions and contributions made, as well as the publications.

CONCLUSION

The dissertation contains scientific, scientific-applied and applied results, which represent an original contribution to science and meet all the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria (ZRASRB), the Regulations for the Implementation of ZRASRB and the Regulations of the MU - Plovdiv. The presented materials and dissertation results fully correspond to the specific requirements adopted in connection with the Regulations of the Ministry of Education - Plovdiv for the application of the ZRASRB.

The dissertation shows that the doctoral student Dr. Tasho Gavrailov Gavrailov possesses in-depth theoretical knowledge and professional skills in the scientific specialty "Oral Surgery", demonstrating qualities and skills for independent conduct of scientific research.

Due to the above, I confidently give my positive opinion on the conducted research, presented by the above-reviewed dissertation work, abstract, achieved results and contributions, and I propose to the scientific jury to award the educational and scientific degree "Doctor" to Dr. Tasho Gavrailov Gavrailov in a doctoral program in Oral Surgery.

03.05. 2023 г.

Заличено на основание
Чл. 51, б. "в" Регламент (ЕС) 2016/679
auth _____
review: _____
Assoc Prof. Deyan Zdravkov Neychev, DMD, DDS, PhD