

REVIEW

by **Victoria Sarafian, MD, PhD, DMSc**

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of a dissertation for the acquisition of the educational and scientific degree "doctor"

Professional field – Dentistry
Doctoral program - Surgical dentistry

Author:

Dr. Tasho Gavrailov

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

Scientific supervisor:

Assoc Prof. Ivan Lulchev Chanchev, DMD, DDS, PhD

General data

The dissertation leaves the overall impression of a conscientiously and competently written work, structured according to the rules for preparing one, with an optimal balance between its individual parts. It is written on 120 standard pages and contains cited 317 literary sources on 25 pages. The literature review is spread over 20 pages, 2 – for aim and tasks and 38 pages for material and methods. The results and their discussion are presented in 55 pages.

Actuality of the topic

Classic methods for vestibuloplasty are constantly enriched, improved and gradually replaced by new alternative approaches. Xenogeneic collagen matrices and autogenous PRF membrane are increasingly discussed as a reliable approach in preprosthetic surgery.

Collagen xenomatrices (Mucograft) provide conditions for adjacent epithelial proliferation and are a good alternative to epithelial grafts.

PRF is believed to allow optimal wound healing and limit the inflammatory process. Combining PRF membranes with medicinal products also implies a certain cumulative healing effect.

The practical need to increase the width of the area with attached keratinized epithelium in edentulous jaws necessitates the relevance and applicability of the present comparative study. The supervisor and the

dissertation student have chosen an interesting scientific-applied topic and have set themselves ambitious tasks, some of which are interdisciplinary in nature.

Problem awareness

The literature review shows excellent knowledge of the problem and creative analysis of the cited literature. It is written clearly, systematically and specifically. The etiological factors leading to reduced dimensions of the prosthetic field in totally edentulous patients and the indications and contraindications for performing vestibuloplasty are presented.

Open and closed vestibuloplasty techniques with their indications and contraindications are reviewed. Attention has been paid to vestibuloplasty by means of a free transplant, the use of skin auto- and allograft, of a graft from the buccal mucosa or from the mucosa of the hard palate. The possibility of using amniotic membrane, *fascia lata femoris*, *dura mater* is described.

The use of collagen membranes and matrices as a substitute for autogenous grafts is discussed. The advantages of PRF membranes are analyzed in the light of modern immunobiological knowledge.

A good impression is made by the analysis of the literature review and the defined unresolved issues.

The goal is logically derived, it sounds detailed but clear.

The tasks in terms of number and content correspond to the purpose and to the personal studies, but they are now formulated much more clearly and concisely and are cleared of details.

Material and methods

This thesis chapter is written with impressive precision, accuracy and detail and allows easy reproducibility and repeatability of the results. The consistently used materials and methods are presented, following the logical course of the study and the tasks set.

Methodical approaches and manipulations are illustrated with informative figures and graphs. A serious set of diverse techniques was used: clinical, imaging-diagnostic, surgical and laboratory. 5 tables, 19 graphs and 29 figures are presented, which are correctly indicated with a corresponding legend to them. Ethical aspects, inclusion and exclusion criteria for patient selection are precisely described.

For the methods that were worked together with other teams, the units and researchers with whose participation the work was carried out are indicated.

The used project financing, with which the development was carried out, is also cited.

Characterization and evaluation of the dissertation work and contributions

The results of the personal studies are described following the tasks of the dissertation work. Quite logically, after the presentation of the results of the task, their discussion follows.

The results are illustrated with color photographs that reflect the step-by-step procedures and interventions and their results. Most of them illustrate clinical procedures and are informative about the approach and effect of their application.

The results are described consistently as the study itself followed and definitely have original scientific value, which is a serious proof of Dr. Gavrailov's growth as a researcher. Combining clinical with experimental approaches is a characteristic feature of any modern scientific work with a claim to innovation, which is also evident in this dissertation.

The discussion of the complex results is focused and thorough and shows an excellent knowledge of the current state of the problem. The discussion is analytical and is a real proof that the PhD student has a deep command of the subject and skillful handling of facts and interpretations. At first glance, the "torn" discussion is actually an attempt by the dissertation student to logically analyze the obtained results for each of the tasks. This approach also allows easy drawing of conclusions for each task.

A very good impression is made by the comparative analysis of the personal results with those of other authors. The literary sources cited in the dissertation are 317, which hardly corresponds to actually read and understood full-text articles. Smaller number, but thoroughly researched and correctly cited articles, would be sufficient. A good impression is made by the fact that Dr. Gavrailov also took into account the Bulgarian contribution on the subject, citing the works of prominent specialists from the department and FDM

The conclusions are informative and reflect the essence of the research and are visibly improved compared to the initial version of the enrollment, being cleaned of numbers and details. However, there are many repetitions in them, the avoidance of which would meaningfully improve the perception of information.

The same applies to the entire text, in which there are many repetitions and punctuation gaps.

I accept the conclusions of the dissertation work as content and as personal work of the doctoral student.

Contributions of an original nature are fully accepted. It would be interesting for the PhD student to share his vision for his future research work

and indicate what, in his opinion, is yet to be studied internationally on the problem he is developing.

Assessment of the PhD student's publications and personal contributions

The dissertation student has submitted 3 full-text publications. The original article in Journal of Functional Biomaterials is a serious request for a scientific contribution, rated in a journal with an impact factor of 4.901 with quartile Q2. The other two articles were published in J IMAB, which has an impact rank. According to these indicators, the doctoral student's publication activity fully corresponds to the minimum scientometric indicators laid down in the ZRAASRB and in the Regulations of MU of Plovdiv.

My personal impressions of Dr. T. Gavrailov during the joint experimental work are very good and are based on the committed and competent attitude to the general study. His participation in the preparation of a joint manuscript demonstrated a skill for critical analysis and excellent professional awareness.


I hope that the doctoral student Dr. Gavrailov will maintain and develop his scientific interests after the defense and will not allow the routine medical work to erase what he learned in the research activity.

CONCLUSION

The thesis project of Dr. Tasho Gavrailov with topic "Comparative evaluation of the results after vestibuloplasty of the mandible with the application of different grafts" contains scientific and applied results that represent an original contribution to science. They meet the requirements laid down in the Regulations of the MU - Plovdiv, for the acquisition of the educational and scientific degree "PhD".

Due to the above, I confidently give my positive assessment of the conducted research and propose to the members of the Scientific Jury to award the educational and scientific degree "Doctor" to Dr. Tasho Gavrailov as a self-taught doctoral student in the "Surgical Dentistry" doctoral program.

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