

ДО ЧЛЕНОВЕТЕ НА НАУЧНОТО ЖУРИ,
НАЗНАЧЕНО СЪС ЗАПОВЕД НА РЕКТОРА НА МУ –
ВАРНА №Р-109-394/ 08.09.2023Г
ВЪЗ ОСНОВА НА ПРОТОКОЛ № 21/ 04.09.2023Г ОТ
ФАКУЛТЕТЕН СЪВЕТ НА ФДМ-ВАРНА ПО
ПРОЦЕДУРА ЗА ПРИСЪЖДАНЕ НА
ОБРАЗОВАТЕЛНА И НАУЧНА СТЕПЕН „ДОКТОР”

Review Report

by

Assoc. Prof. Dr. Iveta Plamenova Katreva, DMD PhD

Medical University “ Prof. Dr. P. Stoyanov” – Varna,
Faculty of Dental medicine
Department of Dental material science and Prosthetic dental medicine

REGARDING ACQUISITION OF THR EDUCATIONAL AND SCIENTIFIC DEGREE
“DOCTOR”

PhD-Program: ”Orthopedic Dentistry”

Professional domain: 7.2. Dental medicine

the field of Higher education: 7. Health care and sport.

Author:

Dr. Tsvetelina Nikolova Kanlieva

Full-time assistant in the “Department of Dental material science and Prosthetic dental medicine”, FDM, MU-Varna

PhD Thesis:

“Prosthetic treatment of patient with a strong nausea and vomiting reflex”

Scientific advisor:

Prof. Dr. Metodi Zahariev Abadzhiev, DSc, PhD, DMD

Dr. Tsvetelina Nikolova Kanlieva is born on 04.08.1988 in Velingrad. In 2013, she graduated the Medical University - Plovdiv, specializing in "Dental Medicine". Since 2018 she has been an assistant at the "Department of of Dental material science and Prosthetic dental medicine", FDM-Varna. In 2022 she acquired a specialty "Prosthetic dental medicine". She participate in preclinical and clinical exercises with dental medicine students.

GENERAL ANALYSIS OF THE DISSERTATION WORK

The dissertation work of Dr. Tsvetelina Kanlieva, full time PhD student, Department of Dental material science and Prosthetic dental medicine, Faculty of Dental medicine, MU-Varna, contains 162 pages. It is illustrated with 21 tables, 95 colored figures and 6 appendices.

The structure of dissertation work complies with the requirements of the Law on the Development of the Academic Staff of the Republic of Bulgaria (LAD), the Regulations for the Implementation of the Law on the Development of the Academic Staff in Bulgaria (RILAD) and the Regulations for a development of the academic staff of MU-Varna.

The literature review is developed in 44 pages, aim and tasks – 1 page, materials and methods – 11 pages, results and discussion – 50 pages, 2 pages of conclusions, 2 pages of conclusion, 2 pages of self-assessment of contributions and 1 page of publications, 12 pages of bibliography and 36 pages of appendices. The literature reference includes 175 literary sources, with 45 in Cyrillic and 130 in Latin script.

Patients with a strong nausea and vomiting reflex are a challenge for dental practitioners in their daily clinical practice. In such cases, treatment becomes more difficult and time-consuming. Often, some of the procedures within the prosthetic treatment plan are even impossible to perform without retreatment training.

Among the most commonly applied approaches in practice to influence the gag reflex are: contact anesthesia with Lidocaine spray in reflexogenic zones, prescribing antiemetics, respiratory techniques, acupressure, and more. These methods often prove insufficient for complete suppression of the reflex and do not provide comfort to the patient during procedures such as taking impressions.

Even with the successful suppression of the gag reflex during a specific procedure, the challenge remains in adapting such patients to removable partial and complete dental prosthesis.

The topic of the current dissertation work is highly relevant given the high frequency of patients with a strong gag reflex, the insufficient effectiveness, in certain cases, of known substances and techniques for managing it, and the immediate proximity of reflexogenic zones when working in the oral cavity. This problem necessitates research and the introduction of new substances and methods into practice.

The literature review thoroughly and critically examines all key aspects related to the development. The introduction to the research work directs attention to the relevance and issues surrounding the topic under consideration. Dr. Tsvetelina Kanlieva demonstrates a very good understanding and analytical approach in presenting scientific data from the researched sources. The review concludes with comprehensive conclusions that convincingly justify the need for more in-depth research, with hypotheses supporting the stated goals and objectives of the dissertation.

The aim and tasks align perfectly with the topic and content of the dissertation work. The aim is formulated as a logical outcome of the literature review analysis. The tasks are precisely and clearly defined, fully corresponding to the stated aim.

Materials and Methods. The chosen methodology is comprehensive and entirely suited to fulfilling the tasks. The selected methods are objective and ensure the reliability of the obtained results. They are systematically organized in a separate chapter and in accordance with the tasks.

For the first task, the degree of the gag and vomiting reflex was quantitatively and qualitatively examined in 121 patients. The pharyngeal reflex was assessed as "+" and "-" after applying stimulation with a swab in the area of 5 zones three consecutive times.

The superficial sensitivity of the mucous membrane in the areas that trigger the gag reflex was examined using Semmes-Weinstein monofilaments (Aesthesio, USA), which reproduce the five levels of sensory thresholds.

For the second task, the pharyngeal reflex and superficial oral sensitivity were compared before and after the application of contact anesthesia with Lidocaine spray, as well as after the intake of homeopathic remedies - Gelsemium sempervirens 30CH, Ipecacuanha 9CH, and Coccus cacti 5CH (Boiron Bulgaria).

For the third task, two clinical algorithms were developed for managing patients with an increased gag and vomiting reflex in prosthetic dental medicine. The first algorithm is based on the application of the contact anesthetic Lidocaine spray. The second algorithm involves premedication with the mentioned homeopathic remedies.

For the fourth task, two questionnaire-based studies were conducted. One survey involved 150 dental practitioners, while the other was directed at the target group of patients (118) with an increased vomiting reflex.

The results for all tasks are analytically described and well-illustrated with numerous images and figures to support their credibility and objectivity. Appropriate statistical methods have been applied.

For the first task, the data are presented descriptively and in detail, supported by diagrams and tables that visually depict and compare the recorded values when assessing the pharyngeal reflex and the superficial sensitivity of the mucous membrane in the reflexogenic zones. In the A-line zone, the gag reflex is observed in 100% of the subjects, with the lowest percentage in the area of the buccal mucosa. The A-line zone and the posterior third of the tongue are also the most sensitive areas. The gag reflex is strongest in the most sensitive zones and depends on the size of the receptor field.

The results for the fourth task systematically and clearly present the questionnaire-based study among 155 dental practitioners and 118 patients, demonstrating the initial working hypotheses.

The author's discussion is comprehensive and includes questions that arose during the course of the research. A comparative analysis has been made between the author's own results and data published by other researchers in the field. Solutions to the identified problems have been proposed.

Conclusions. The dissertation work provides an opportunity to draw several conclusions regarding the identified problems. The conclusions are organized by tasks and are a logical result of the detailed and critical discussion of the author's own clinical and laboratory results obtained during the study of the pharyngeal reflex and sensitivity of reflexogenic zones before and after the application of contact anesthesia and homeopathic premedication.

CONTRIBUTIONS OF THE PRESEN WORK

I. Scientific and applied contributions:

Of an original character:

1. For the first time in Bulgaria, the sensitivity of the lining of the oropharynx was studied by plastic fibers with approximately logarithmic scale of actual strength and linear scale of perceived intensity.
2. For the first time, homeopathic was used to influence the vomitus reflex.
3. It has been found that the nausea reflex after taking homeopathic remedies is reduced in 44.30% of patients. Tactile flair is preserved.
4. It was found that sensory and reflex response after administration of a local anesthetic was decreased in 48.76% of the patients studied.

Confirmatory in nature:

1. It has been confirmed that in the prosthetic treatment of patients with the pharyngeal reflex, the most difficult to manage is the impression procedure.
2. The most reflexogenic zones of the oropharyngeal complex were confirmed, with 100% of the subjects having gag reflex in the area between the hard and soft palates, 91.74% the posterior third of the tongue and 52.89% - the lateral edges of the tongue.

3. It has been confirmed that the size of the receptor field is relevant for the occurrence of a nausea reflex.
4. It has been confirmed that after delivering a new removable prosthesis, patients with enhanced palatal reflex continue to be intolerant due to contact of the denture base with receptor fields.
5. Lidocaine has been confirmed to reduce the nausea reflex, but is only applicable by the dentists in clinical settings.

II. Applied Contributions:

Of an original character:

An algorithm has been created for the management of patients with an increased gag reflex and the use of homeopathic medicines, which can be applied during the clinical stages and during the adaptation period by the patient himself.

PUBLICATION RELATED TO THE TOPIC OF THE DISSERTATION

In the dissertation and the abstract, a list of three publications directly related to the topic is presented. Dr. Tsvetelina Kanlieva is the first co-author in all three articles.

ABSTRACT

The abstract comprises 61 pages and encompasses all the main sections of the dissertation work. It provides a clear overview of the entire **dissertation**, including the methods used, key results, and conclusions. The abstract includes relevant figures, diagrams, tables, and images.

CONCLUSION

Dr. Tsvetelina Nikolova Kanlieva's dissertation on the topic " Prosthetic treatment of patient with a strong nausea and vomiting reflex " is a scientific work that offers numerous original and scientifically applicable contributions. The author demonstrates deep scientific knowledge in the field of prosthetic dental medicine and the ability to conduct independent scientific research.

I give my overall positive assessment regarding the dissertation and will vote with conviction "Yes" for awarding the educational and scientific degree "Doctor" to Dr. Tsvetelina Nikolova Kanlieva.

27.10.2023

Varna

Prepared the opinion:

Assoc. Dr. Iveta Katreva, MD

