

STATEMENT

In connection with a dissertation for the award of the educational and scientific degree "**DOCTOR**" on the topic: "Tinnitus and auditory changes in patients with dysfunction of the temporomandibular joint"

Author of the dissertation:

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Supervisor:

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Member of the Scientific Jury who prepared the review

- Assoc. Prof. Dr. Alexander Valkov Valkov, MD, Department of Ophthalmology, ENT Diseases and Oral and Maxillofacial Surgery with Surgical Dentistry, Department of Ear, Nose and Throat Diseases, Medical University of Pleven, Pleven.

The review was prepared in accordance with the Academic Staff Development Act , the Regulations for the Application of the Academic Staff and the Regulations on the Terms and Conditions for Acquiring Scientific Degrees and Holding Academic Positions at MU-Varna. The scientific jury for the public defense of the dissertation was determined by order of the Rector of the Medical University - Varna № P-109-87 / 23.02.2022. The presented set of materials on paper / electronic media is in accordance with the procedure for acquiring ONS " doctor "and the regulations of MU - Varna.

Dr. Boris Yankov Borisov was born on November 27, 1971. In 1997 graduated with a master's degree in dentistry from the Medical University of Plovdiv and began his professional career as a dentist immediately after graduating. Since 2011 he has been an assistant at the Faculty of Dental Medicine at the Medical University "Prof. Dr. Paraskev Stoyanov" Varna. In January 2020. was enrolled as a doctoral student in full-time education in the doctoral program "Orthopedic Dentistry" at the Medical University of Varna. Dr. Borisov has completed in time all the tasks and activities set in the individual curriculum. He successfully passed the doctoral minimum exam.

Structure of the dissertation:

The dissertation of Dr. Boris Borisov is written on 172 standard pages, of which:

1. Title page - 1
2. Content - 1
3. Abbreviations used in Bulgarian -1
4. Abbreviations used in Latin -1
5. Introduction - 2
6. Literary review - 49
7. Purpose and tasks - 1
8. Materials and methods - 14
9. Results and discussion – 63
10. Conclusions - 1
11. Conclusion - 1
12. Contributions of the dissertation - 1

- 13. Bibliography -27
- 14. Appendices - 10

The ratio overview: methodical: result-discernment part is optimal, respectively 30: 10: 60%. The dissertation contains a total of 89 figures, 10 tables. The bibliography includes 325 sources, of which 20 are in Cyrillic and 305 in Latin. All the cited titles are directly related to the studied problem.

On the topic of the dissertation the candidate has published three papers, accepted and published in the journals "Journal of the Union of Scientists-Varna. Medicine and Ecology Series "and" International Journal of Science and Research ". Based on this, the scientific activity in the period of preparation of the work is assessed as satisfactory.

Characteristic features of work:

The topic of the dissertation "**Tinnitus and auditory changes in patients with temporomandibular joint dysfunction**" is well chosen in terms of the importance of the problem, current issues and projections into the future. There are almost no publications in our country related to research methods and trends in the treatment of tinnitus and TMJ dysfunction and the relationship between them.

The literature review is 49 pages long and presents the author as an expert on the subject. The anatomy of TMJ and ear, epidemiology and risk factors related to TMJ and tinnitus dysfunction, the study of the relationship between them, diagnosis and treatment and conclusions from the literature are consistently covered.

The aim of the study was formulated precisely and clearly, namely - to investigate and evaluate the relationship between problems in the temporomandibular joint and tinnitus in patients with audiovestibular diseases. To achieve it, the dissertation has defined 5 main tasks in his dissertation:

1. To systematize the demographic and clinical information for patients who have undergone prosthetic treatment in connection with temporomandibular dysfunction (TMD).
2. To examine patients with tinnitus: - to assess tinnitus - to examine TMJ dysfunction.
3. To investigate and evaluate the relationship between tinnitus and TMJ dysfunction.
4. To prepare a risk profile of patients with tinnitus and TMJ dysfunction.

To create an algorithm for the diagnosis of patients with tinnitus and TMJ dysfunction, enriched with a closely specialized diagnostic protocol for TMD in collaboration with an ENT specialist.

The formation of the sequence of tasks is an example of structuring research - from active search for patients with tinnitus from those past for prosthetic dental treatment, through analyzing the pathology, creating a patient profile related to risk factors, determining which risk factors determine the relationship between TMJ dysfunction and tinnitus, building and introducing a practical approach for the diagnosis of adult patients with TMJ and tinnitus dysfunction.

Impressive is the methodology of the study, which includes 152 patients who have passed through the clinical halls of SPF - Varna and have undergone prosthetic treatment, of which 150 have been examined by an ENT specialist for tinnitus proven by subjective audiometry, assessing their condition through a questionnaire and the link between TMJ and tinnitus.

The results obtained are convincing. They are presented clearly, accurately - in general for the studied contingent, as well as by subgroups, allowing for tracking and comparison of data. Completely appropriate statistical methods have been used to obtain them. Each chapter ends with a summary of the data obtained and the doctoral student makes a successful attempt to integrate them in order to build an optimized systems approach.

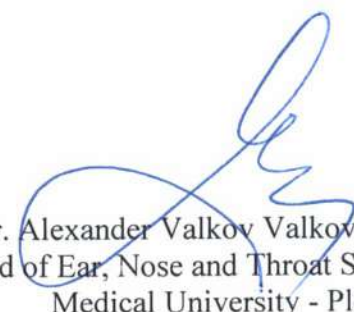
The conclusion corresponds to the obtained results, the same applies to the **conclusions** made. The contributions of the dissertation are of emphasized scientific and applied nature, well formulated and are the result of the research. For the first time in our country, the relationship between temporomandibular dysfunction and tinnitus has been subjected to critical analysis and recommendations for dental practice have been made. Boris Borisov. I highly appreciate the work of Dr. Borisov. in several directions

1. The relationship between TMJ dysfunction and tinnitus is clearly shown.
2. Emphasis is placed on the multidisciplinary approach in the diagnosis of the etiology and subsequent treatment of tinnitus
3. The proposed systematic approach in adults with GMS based on modern diagnostic and therapeutic methods
5. I would recommend continuing the work of Dr. Borisov in the direction of increasing the experimental cohort, taking into account the results of treatment and dysfunction of TMJ and the impact of tinnitus on it.

The results of the dissertation confirm, clarify, supplement and enrich the knowledge about adults with TMJ and tinnitus dysfunction, their diagnosis and treatment, and the study is of great practical value for our country.

Conclusion: In conclusion, the dissertation presented by Dr. Boris Yankov Borisov contains scientific, scientific-applied and applied results, which represent an original contribution to science and meet the requirements **for awarding educational and scientific degree "DOCTOR"**. The dissertation shows that the doctoral student has in-depth theoretical knowledge and professional skills in the scientific specialty, demonstrating qualities and skills for independent conduct and discussion of research. On these grounds, I propose to the esteemed members of the Scientific Jury to vote positively and propose to the Rector of MU - Varna to award the scientific and educational degree "Doctor" in Orthopedic Dentistry, Dr. Boris Yankov Borisov, Department of Dental Materials Science and propaedeutics of prosthetic dentistry ", Faculty of Dental Medicine, MU" Prof. Dr. Paraskev Stoyanov "Varna.

23.03.2022


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