

ATTITUDE

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Member of the Scientific Jury according to Order № P109-438 / 07.10.2021. of a dissertation for awarding an educational and scientific degree "**Doctor**".

Professional field: 7.1. "Medicine" scientific specialty "Otorhinolaryngology"

Author: Dr. Asen Georgiev Asenov

Topic: "VOICE REHABILITATION OF PATIENTS LARYNGECTOMY USING VOICE PROSTHESIS"

OVERVIEW OF THE PROCEDURE

The presented set of materials in paper and electronic form is in accordance with the requirements for acquiring the academic scientific degree of "Doctor" according to the Law for the Development of the Academic Staff in the Republic of Bulgaria (LDASRB) and the Regulations of the Medical University - Varna.

Application (form) to the Rector of MU-Varna

CV in European format

Copy of the diploma degree "Master"

Order enrollment

Minutes from an exam for doctoral minimum

Minutes of Department Council with a positive decision on the readiness of defense

Order for deduction entitled to protection

Declaration of originality

Dissertation work and abstract

List of publications related to the topic of the dissertation

Copies of the publications related to the topic of the dissertation

Declaration of originality

Declaration of authenticity of the submitted documents

Other documents related to the course of the procedure

The presented package of administrative documents has been prepared precisely and thoroughly.

BRIEF BIOGRAPHICAL DATA

Asen Georgiev Asenov graduated with a Master's degree of Medicine at the Medical University of Plovdiv in 1997. His professional development is associated with continuous upgrading and improvement. He has acquired a specialty in ENT Diseases (Diploma № 000472 from 2003). He graduated in 2011 with a second master's degree in "Public Health and Health Management" at the Faculty of Public Health of the Medical University - Plovdiv (MUP 09 Diploma № 008909 from 18.07.2011).

Dr. Asenov began his professional career as an ENT doctor at the 1st City Polyclinic, Plovdiv, immediately after graduating. Since 2000 he has been working at UMBAL "Plovdiv" AD in the ENT department, and since 2009 as the head of department.

Dr. Asenov began his research and teaching activity in 2016, when he was appointed to the Department of ENT Diseases at MU Plovdiv as Assistant Professor.

Dr. Asenov has extensive professional experience. He is constantly upgrading his qualifications with over 20 additional courses at home and abroad in the field of his scientific interest.

Carries out active teaching activities among students of medicine and dentistry at the Medical University of Plovdiv in Bulgarian and English.

He is a member of prestigious international and national organizations: Bulgarian Society of Otorhinolaryngology; Bulgarian Rhinological Society; PVSF Pacific Voice of San Francisco; ERS European Rhinology Society; SAPAAC - The Society of Asia Pacific Anti-Aging Course. Fluent in both written and spoken English.

RELEVANCE OF THE TOPIC

The topic of the dissertation is undoubtedly relevant. The importance of cancer is becoming increasingly recognizable, as are the challenges in managing this medical and social problem. In addition, increasing attention is being paid to the possibility of ensuring the quality of life of this group of patients. It is in this direction that the dissertation is developed.

CHARACTERISTICS AND EVALUATION OF THE DISSERTATION WORK

In terms of content and structure, the dissertation work meets the requirements for the defense of the title of "Doctor". It is written on 114 standard pages. It is illustrated with 20 figures and 1 table. It is structurally divided into five main parts, preceded by an introduction. The scientific work ends with conclusions, scientific contributions, literature and applications.

The scientific development begins with an introduction in which Dr. Asenov presents the importance of the chosen topic and the need for its development.

The literature review as content, logical structure and sources shows the possibilities and skills of Dr. Asenov to work with scientific sources, to analyze them critically and to summarize. 185

sources were used, of which 15 in Cyrillic. All of them are relevant to the researched issues. The number of cited publications from the last 10 years is significant, which is another confirmation of the relevance of the topic.

The physiology of speech and the methods known in practice for voice rehabilitation in laryngectomized patients are considered with a high degree of precision. The specialized literature is appropriately selected, which objectively presents the considered techniques, the need to assess the patient's condition, including the patient's education.

The set goal and the 6 main tasks related to its implementation are logically formulated. The aim is to analyze the experience of two Bulgarian centers for voice rehabilitation of laryngectomized patients with voice prostheses in order to optimize the practical approach in these patients.

The chapter "Material and Methods" presents a complex methodology of self-developed and standardized techniques. Each of the methods and the corresponding target groups in which it is applied such as the selection of participants and inclusion criteria are precisely described. This allows detailed monitoring of the work at each stage. The requirements for the selection of logical units have been met, and prior informed consent for their participation in the study has been obtained.

51 patients (47 men and 4 women) were included, after a total laryngectomy in two centers ENT department at UMHAT "PLOVDIV" AD and ENT clinic at UMHAT "St. MARINA" Varna. The applied operative techniques are described in detail, which includes: standard with Haslinger esophagoscope, modified hollow trocar, central venous catheter, steel guide and foil catheter and modified Lichtenberger-Brown technique for tracheoesophageal puncture. The necessary instruments have been selected extremely precisely: EENC (endo-extralaryngeal needle holder), non-laton catheter, Macintosh laryngoscope. Video fluoroscopy was applied for preoperative assessment of the local status and the choice of the size of the voice prostheses.

Adequate statistical methods have been used in the processing of the obtained primary data, which allows to draw significant conclusions for the practice.

The analysis of the collected data is presented competently and in-depth in the chapters "Results" and "Discussion", following the logical sequence of the tasks. The results of the study are interpreted correctly in terms of key indicators. A standard technique is presented in which patients speak up to 6 hours, on average, after the prosthesis is placed. Two cases of mediastinitis with subsequent closure of the fistula and 2 cases of lateral myotomy of pharyngeal constrictors have been reported, with one patient speaking 5 days later and the other having a pharyngocutaneous fistula closed with a pectoral flap.

The main phonological characteristics of tracheoesophageal speech are analyzed - duration, average number of words with one expiration in patients with TEP, speech rate. It is noteworthy

that the average effective life of a voice prosthesis is 185 days against 85 days by international standards.

A critical analysis of this technique was made, presenting the complications that occurred during its application, formed into the following groups: mild complications, relatively life-threatening complications and those with absolute danger to life.

The characteristics of the cohort of laryngeal prosthetic patients are described and analyzed.

The first results with own modified surgical technique are presented.

An in-depth analysis of non-surgical problems and challenges of the voice rehabilitation faced by the laryngectomized patients through TEP and implantation of voice prostheses in our country is presented.

The conclusions reflect in a synthesized form the main aspects of the study.

The results of the study allow Dr. Asenov to formulate contributions with original and practical-applied character. An original modified Lichtenberger method for tracheoesophageal fistulization was introduced, thanks to which complications such as injury and penetration through the posterior wall of the esophagus were avoided. Video fluoroscopy has been introduced, which objectifies the thickness of the tracheoesophageal septum and the position of the inner flange of the voice prosthesis. The conducted comparative phonetic analysis between the sound production by means of esophageal, alaryngeal speech and such after the placement of a voice prosthesis, objectifies the indisputable advantages of the alaryngeal speech by means of a voice prosthesis. An important contribution is the popularization of the method for voice rehabilitation of laryngectomized patients through voice prostheses in Bulgaria, which has been successfully applied for years in leading clinics in the country.

KNOWLEDGE OF THE PROBLEM

Dr. Asenov shows excellent knowledge of the problem, which is demonstrated by the logical structure of the dissertation, a well-structured literature review, correctly formulated goals and objectives, a skillful combination of research methods and competent analysis of the results.

ABSTRACT

The abstract meets the requirements in structure and content and reflects the main results obtained in the implementation of the objectives and tasks.

PUBLICATIONS ON THE TOPIC OF THE DISSERTATION WORK

Dr. Assenov presents 3 full-text publications in scientific journals, two of which he is the first author and lead author. Part of the developed dissertation is presented at scientific forums at home and abroad.

CONCLUSION

Dr. Asen Asenov presents a very seriously and responsibly developed a theoretically empirical dissertation. The research is precise in terms of choice of methodologies, statistical data processing, procedures and design. The summarized conclusions are accurate and strongly supported by the obtained results. The language and style in which the dissertation is written is clear, understandable and scientifically sound.

All this gives me the right and reason to give my positive assessment of the research and to propose to the esteemed scientific jury to award the title "Doctor" to Dr. Asen Asenov in the scientific specialty "Otolaryngology"; professional field 7.1. Medicine; field of higher education 7. Health and Sports.

01.12.2021

Plovdiv

Prepared by:
/ Prof. Karen Brianov Dzhambazov, MD, PhD /