

A REVIEW FROM

Assoc. Prof. Dr. Mario Petrov Milkov, MD, PhD - Otorhinolaryngologist, habilitated in the professional domain 7.1 Medicine, Medical University - Varna, Head of the Department "Dental Materials Science and Propaedeutics of Prosthetic Dentistry", Faculty of Dental Medicine, Medical University "Prof. Dr. Paraskev Stoyanov" - Varna, member of the Scientific Jury, according to order №R-109-438 / 07.10.2021.

Of: Thesis on „VOICE REHABILITATION OF LARYNECTECTOMY PATIENTS THROUGH VOICE PROSTHESES“ for the award of the educational and scientific degree „Doctor of Philosophy“ on the PhD programme “Otorhinolaryngology”, professional domain 7.1. Medicine, Higher education: 7. Health care and sports.

Author: Dr. Assen Georgiev Assenov, MD, a PhD-student in the PhD programme “Otorhinolaryngology”.

Scientific Supervisor: Assoc. prof. Dr. Nikolay Sapundzhiev, MD, PhD

1. General presentation of the procedure and the candidate.

The presented set of materials on paper is complete and is in accordance with the Procedure for acquiring the educational and scientific degree „Doctor of Philosophy“ at the Medical University - Varna.

2. Short biographic information of the candidate.

Dr. Assen Georgiev Assenov, MD is a graduate of the High School for Teaching Foreign Languages "Georgi Kirkov" Plovdiv. In 1997, he completed his medical education with honors at the Higher Medical Institute in Plovdiv. He acquired a specialty in ENT diseases in 2003. Since 2011 has a master's degree in Health Management. He is the Head of the ENT Department at the University multiprofile Hospital for Active Treatment, Plovdiv, and is assistant professor, Department of ENT Diseases, Medical University of Plovdiv.

He is fluent in English and Russian, speaks Italian and French. Married, with 2 children.

3. Relevance of the topic and expediency of the set goals and objectives.

This dissertation presents a solution to a problem related to the socialization of laryngectomized patients, namely the reproduction of alaryngeal speech through voice prostheses.

4. Understanding of the topic.

In order to optimize the practical approach to the placement of voice prostheses, a comparative critical analysis was made between a standard method for placing voice prostheses with a Haslinger esophagoscope, hollow trocar, venous catheter and guide and a modified Lichtenbergerger-Brown technique with endo-extralaryngeal needle holder, Macintosh laryngoscope, non-latonic catheter and pointed scalpels. There were 2 cases of mediastinitis in the standard technique and zero in the modified Lichtenbergerger method.

Complications from the prosthesis itself, such as mild (granulation and incarceration of the prosthesis in the mucosa), and relatively life-threatening (such as prolapse of the prosthesis in the GIT or prolapse of the right main bronchus with subsequent extraction under local anesthesia) were also commented on.

The method of video fluoroscopy was also introduced as a method for determining the size of the prosthesis and the position of its inner flange.

A phonetic comparative analysis was made between Esophageal speech (EG) and one through Voice prostheses (GP).

5. Methodology of the study.

The Material and Methods section is written on 12 pages, with a detailed description of the methodology implemented. The PhD student examined 51 patients (47 men and 4 women) in two centers: ENT department at UMHAT "PLOVDIV" AD and ENT clinic at UMHAT "St. Marina" Varna. Both standard and modified Lichtenbergerger techniques were used to form the tracheoesophageal fistula. The prostheses are placed in the second stage - at least 6 weeks after radiation therapy. The main indications and contraindications for performing tracheoesophageal fistula have been established. After the fistula has formed between 24 and 48 hours, a prosthesis is placed, and in most cases the patient speaks up to 30 minutes later. Lateral myotomy of the pharyngeal constrictors was performed in two patients. The average lifespan of the prosthesis is 185 days, comparable to international standards. The prosthesis is replaced under local anesthesia within 5 minutes.

6. Characteristics and evaluation of the dissertation work.

The presented scientific work contains 114 pages and is illustrated with 20 figures and 1 table. It is structured correctly and contains sections: Introduction, Literary review, Purpose and tasks, Material and methods, Results, Discussion, Conclusions, Contributions of scientific-theoretical and of scientific-practical nature, Publications and scientific participations related to the dissertation. The bibliography consists of 185 sources, of which 11 in Cyrillic and 174 in Latin language.

7. Contributions and importance of the dissertation work for the science field and practice.

The conclusions that can be drawn from this dissertation are:

Voice prostheses, although the "Golden Standard" for voice rehabilitation of laryngectomized patients around the world and in Bulgaria, are still poorly represented due to lack of information and unpreparedness of ENT specialists in the country, as well as due to the unclear financial framework for their delivery. This work supports the popularization of the method and as positives can be presented the inclusion of tracheoesophageal fistulation and prosthesis replacement.

The doctoral student has identified 5 contributions of scientific-theoretical and of scientific-practical nature, related to the analysis of data from the frequency of tracheoesophageal puncture (TEP), first results of his own modified surgical technique, characteristics of analyzed laryngeal prosthetics, in-depth analysis of non-surgical problems and challenges to the voice rehabilitation of laryngectomized patients through TEP and implantation of a voice prosthesis in our country.

8. Evaluation of the scientific publications and participations.

There are 3 full-text publications (2 of which are in foreign journals) and 4 scientific participations (2 of which in international forums). The volume of articles and reports in connection with the dissertation is sufficient.

9. Personal involvement of the candidate.

Dr. Assen Assenov, MD is one of the leading authors in the field of research, which shows his personal contribution. He has also worked with other clinicians, which shows his ability to work in a team.

10. Summary.

The content and quality of the summary, with a conclusion, is done on 54 pages and meets the requirements. The main results, conclusions and contributions of the dissertation are reflected.

CONCLUSION

The dissertation contains scientific-theoretical and scientific-practical contributions, which represent an original contribution to the science field. This meets all the requirements of the Law for the Development of the Academic Staff in the Republic of Bulgaria. The presented materials and dissertation results correspond to the specific requirements of Medical University - Varna.

The dissertation shows that the doctoral student Dr. Assen Georgiev Assenov has in-depth theoretical knowledge and professional skills in the scientific specialty "Otorhinolaryngology", in professional domain 7.1. Medicine, Higher education 7. Healthcare and sports. Qualities and skills for independent research are demonstrated.

Bearing in mind the abovestated, I am confidently giving my positive assessment of the studies and their results presented by this thesis and summary as reviewed above. I propose to the honorable scientific jury to award the educational and scientific degree "Doctor of Philosophy" to Dr. Assen Georgiev Assenov in the PhD Programme "Otorhinolaryngology", professional domain 7.1. Medicine, Higher education: 7. Health care and sports.

29.11.2021
Varna

Reviewer: 
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