



### REVIEW

- by **Prof. Dr. HRISTO BOGDANOV ZHELYAZKOV MD**, specialist in neurosurgery, head of the Neurosurgery Clinic of the UMBAL "St. Georgi" - Plovdiv

- On the dissertation work on the topic "**ASSESSMENT OF THE RESULTS AFTER URANOPLASTY WITH TWO SURGICAL TECHNIQUES**" for awarding the educational and scientific degree "**DOCTOR**" in the field of higher education 7 Health care and sports, professional direction 7.1 Medicine, Doctoral program in plastic- reconstructive and aesthetic surgery, according to Art. 4 para. 2 of ZRASRB, and in fulfillment of Art. 30, para. 2 of the Regulations for the implementation of ZRASRB of the MU- Plovdiv and by Decision of the Faculty Council / №5/12.07.2023/ of the Medical faculty.

- **AUTHOR OF THE DISSERTATION - DR. KOSTADIN GIGOV** - doctoral student of self-study in the "Propaedeutics of surgical diseases" department, MF, MU - Plovdiv - section of plastic-reconstructive and aesthetic surgery.

- **SCIENTIFIC SUPERVISOR – PROFESSOR DR. YURI ANASTASOV, DMN**

**BRIEF BIOGRAPHICAL INFORMATION ABOUT THE DOCTORAL CANDIDATE:** Dr. Kostadin Gigov was born on 24.11.1982. He completed his medical education at the Medical University of Plovdiv in 2007. In 2021, he obtained a diploma in the specialty "Health Management". From 2005 to 2009, he worked at the "Dr. Anton Tonev" Medical Center for Plastic Surgery, and from 2009 he was appointed to the "St. George" UMBAL as a specialist doctor in the Clinic for Plastic Reconstructive and Aesthetic Surgery for Children, where still works now. In 2013, he acquired a specialty in "Plastic reconstructive and aesthetic surgery". Since 2015, he has been working on a second contract at the "CARIDAD" Medical Center - Plovdiv.

He has completed the following courses and specializations:

- 2016 – Specialization in plastic surgery in Sweden, Malmö University Hospital – Lund, Department of Plastic and Reconstructive Surgery, Department of Clinical Sciences, under the supervision of Prof. Henry Svensson,
- Magnus Becker (congenital facial anomalies) and Martin Oberg (pinna reconstruction)
- 2013 Specialization in plastic surgery in France, Lille University Hospital "Hospital Roger Salengro Plastic Reconstructive Surgery", under the guidance of Prof. Pellerin (leading specialist in Craniofacial Surgery) and Prof. Véronique Martineau (leading specialist in Breast Reconstruction);
- 2012 - University of Maxillofacial Surgery - Slovenia, Ljubljana, exchange of experience in the field of congenital facial anomalies under the guidance of Prof. Yu. Anastasov and Prof. V. Kožel. Speak english fluently - spoken and written.

### IMPORTANCE OF THE TOPIC :

One of the most common congenital anomalies in the craniofacial region is cleft lip and palate - about 1 in 750 newborns. The surgery of these anomalies is difficult, a multidisciplinary approach is required in their treatment, and there is no complete consensus and unified strategy in their overall treatment. In recent decades, the Eurocleft project has helped to standardize this approach, not only for the stages of surgical treatment, but also to standardize follow-up and diagnostic rules. The representative in the project for our country is Prof. Yuriy Konstantinov Anastasov, dmn. Head of the - Department of plastic reconstructive and aesthetic surgery for children , UMBAL "St. Georgi", the city of Plovdiv. A team was

created, which established itself as the only one in a multidisciplinary specialized center for the treatment of facial anomalies, accepting and treating 90% of the cases in the country. A non-governmental organization ALA of parents of children with facial anomalies was also created, which coordinates the work of multidisciplinary teams, and since 2010 a database registry for facial anomalies has been created, which has become an Electronic File, and through additional funding from the Canadian organization Transforming Faces efforts are aimed at creating global assessments for each aspect of treatment at specific ages – 5-7 years, 8-10, 11-14, 15-18.

It is the possibility of such a global assessment that is the challenge for the present study to compare in this way the results of the most frequently used operational methodologies.

#### **LITERATURE REVIEW :**

The literature review is sufficiently extensive and up-to-date and contains data on the frequency and prevalence of facial clefts; etiology and genetics; normal and pathological anatomy and embryogenesis; classification; an overview of surgical methods of treatment and the organization of this treatment. In the last section, the main standards for documentation and evaluation of the follow-up of speech disorders and dental-jaw deformities are described, which is a prerequisite for developing the own methodologies.

#### **GOAL AND TASKS:**

**The aim of the study is to analyze early and late results of operative corrections of the palate in two surgical methods - closed uranoplasty according to Anastasov and Veau-Wardill-Kilner modification**, in patients with congenital clefts of the lip and palate or of the palate alone and to establish the advantages and disadvantages of the two techniques and to establish the advantages and disadvantages of the two techniques through postoperative follow-up of complications, speech outcomes, and dento-maxillofacial development

**The tasks follow the set goal:** 1. Comparative assessment of the presence of oronasal fistulas in the two main operative techniques applied by team; 2. Analysis of speech results 3. Assessment of dental-jaw development and dental-jaw deformations.

#### **MATERIAL AND METHODS:**

The material of the study covers 382 patients aged 4-15 years, hospitalized in the Department of Plastic, reconstructive and aesthetic surgery for children, UMBAL "St. Georgi" EAD, Plovdiv for the period from 2005 to 2022, divided into two groups according to the operative technique used. Of the total number of patients, **204 (53%) were operated on according to the modified Veau-Wardill-Kilner technique and 178 (47%) according to the Anastasov technique**. Clear and adequate inclusion and exclusion criteria were used.

All the methods used are based on the ability to follow-up patients in the electronic register EMRFA - Electronic Medical Register for Facial Anomalies (EMDLA). The two surgical methods are very precisely described and illustrated. The methods for general assessment of postoperative results are presented systematically and in detail; as well-the methods for speech therapy evaluation, assessment of maxillofacial development and dental-maxillofacial deformities. Statistical analysis of the primary data was performed with a statistical software package.

## **RESULTS AND DISCUSSIONS:**

Dr. Gigov presented his own research systematically following the three main tasks, and after each section a thorough discussion and conclusions were made. With regard to oronasal fistulas, the studies in the dissertation prove that their severity and frequency are directly dependent on the preoperative severity of the cleft, but in the most severity forms, the results are better with the Anastasov technique. Speech therapy follow-up is based on in-depth follow-up in three age groups and shows comparable speech results with both methods. In the studies on the third task, the patients followed by two main indexes are divided into two age groups, which leads to adequate conclusions regarding the severity of the dental-jaw deformities and the need for orthodontic treatment for the different types of clefts. Regarding dental occlusion, the results of the technique of Veau-Wardill-Kilner are less favorable.

**In conclusion**, the dissertation finds that the new technique is applicable to almost 70% of all forms of cleft lip and/or palate; the speech results with both techniques are similar with a small advantage for better speech performance with the Anastasov technique. Emphasizes the importance of the established relationship between specialists in EMDLA - Electronic medical record for facial anomalies, the need to introduce global assessments and the requirement to categorize the priorities in therapies for each specialty, and the ALA and the team at the center to introduce and use in EMDLA consensus national methods for speech assessment.

## **CONTRIBUTIONS:**

7 original contributions and 7 corroborative contributions are indicated. I value as extremely important and unique for the country the contribution to the creation of a project for a national network for multidisciplinary treatment and dispensary monitoring of patients with facial anomalies, which is carried out by the research team - Department of plastic reconstructive and aesthetic surgery for children and ALLA with the support of leading international organizations - Smile Train from the USA and Transforming Faces from Canada. Speech analysis and maxillofacial growth were performed according to protocols that are in sync with international documentation protocols.

## **BIBLIOGRAPHY:**

The bibliography contains 399 literary sources – 17 in Cyrillic and 382 in Latin.

## **PUBLICATIONS:**

The dissertation student has a total of 9 full-text scientific publications in connection with the dissertation - 2 in English and 7 in Cyrillic. In addition, there are 17 participations in scientific forums - 7 at international congresses and 10 in our country.

## **CONCLUSION:**

The dissertation contains scientific and scientific-applied results, which represent an original contribution to science and meet all the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria (ZRASRB), the Regulations for the Implementation of

the ZRASRB and the Regulations for the Development of the Academic Staff of a Medical University - Plovdiv.

The dissertation shows that the doctoral student possesses theoretical knowledge and professional skills in the scientific specialty PLASTIC-RECONSTRUCTIVE AND AESTHETIC SURGERY, demonstrating qualities and skills for independent conduct of scientific research.

Due to the above, I confidently give my positive assessment of the conducted research, presented in the dissertation work and the abstract, and **I propose to the honorable scientific jury to award the educational and scientific degree "doctor" to Dr. Kostadin Gigov in the doctoral program in Plastic-Reconstructive and Aesthetic Surgery.**

Plovdiv, 10.08.2023

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