

Opinion

by

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Regarding the dissertation for the awarding of the educational and scientific degree "Doctor"

Field of study: **Medicine**

Doctoral Program: **Pediatric Surgery**

Author: **Dr. Petar Stamov**

Form of Doctorate: **Independent**

Academic Unit: **Pediatric Surgery Clinic at UMHATSM "N.I. Pirogov"**

Topic: **"Method of temporary decompression of the gastrointestinal tract by forming an enterostomy with T-tube in newborns with low and extremely low birth weight"**

Scientific Supervisor: **Prof. Dr. Hristo Shivachev, Ph.D.**

1. General Overview of the Procedure and the Doctoral Candidate

The submitted set of materials, in both paper and electronic formats, complies with the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria, its implementing regulations, and the regulations for the development of the academic staff at UMHATSM "N.I. Pirogov" EAD, Sofia. The set of documents is complete and includes:

- Dissertation;
- Abstract;
- Curriculum Vitae;
- Diplomas and certificates;
- List of publications and participation in scientific forums;
- Report on the fulfillment of scientometric criteria;

- Administrative documents in accordance with the Regulations for the Development of the Academic Staff at UMHATSM "N.I. Pirogov" EAD, Sofia – orders for enrollment, disenrollment, scientific jury, declarations of conflict of interest, and the authenticity of the submitted data.

The doctoral candidate has included, in relation to the dissertation, 3 publications (in Bulgarian journals) and 4 scientific presentations at national and international forums.

2. Brief Biographical Data of the Doctoral Candidate

Dr. Petar Stamov was born on January 10, 1983, in Tetovo, North Macedonia. He completed his medical education in 2007 at the Medical University "Prof. Dr. Paraskev Stoyanov" – Varna. After graduation, he won a competition in 2008 for specialization in Pediatric Surgery at UMHAT "St. Anna-Varna." He obtained his specialty in Pediatric Surgery in 2015. From 2010 to 2022, he worked in the Pediatric Surgery Department at MBAL "St. Anna-Varna." Since 2022, he has been a member of the team at the First Surgery Clinic, Pediatric Surgery Department at UMHAT "St. Marina." In 2023, following a competition, he became a regular assistant in the Department of General and Operative Surgery. In 2021, he was enrolled as an independent doctoral candidate at the Pediatric Surgery Clinic, UMHATSM "N.I. Pirogov," Sofia. He has additional qualifications in upper and lower endoscopy, minimally invasive surgery, and abdominal ultrasound. He lectures and conducts practical exercises for medical students. He is proficient in English and Turkish.

He is a member of the Bulgarian Medical Association, the Scientific Society of Pediatric Surgery, the Bulgarian Society of Pediatric Gastroenterology, Hepatology and Nutrition, and the Bulgarian Pediatric Association.

3. Relevance of the Topic and Appropriateness of the Objectives and Tasks

In his dissertation, Dr. Petar Stamov addresses a current and significant topic in neonatal and early childhood surgery, specifically focusing on the surgical treatment of intestinal obstruction. The described neonates are primarily those with low birth weight and associated anomalies, accompanied by severe respiratory distress and progressively worsening symptoms. For most of these patients, bowel resection is necessary. A key stage in the surgical technique involves creating an enterostomy to protect the primary anastomosis, as well as for enteral feeding and antegrade enemas. Enterostomy using a T-tube is an alternative technique to avoid such complications.

The method combines the effect of enterostomy for achieving bowel decompression, with advantages such as reduced losses, the possibility for irrigation, and protection of the primary anastomosis. This approach minimizes complications associated with the stoma and eliminates the need for a second operation for stoma closure. The goal aligns with the principles of minimal trauma and maximum organ preservation. The derived tasks are clearly defined, demonstrating a deep understanding of the problem. The indications for applying the method are specified. The data shows that the methodology has been successfully implemented as a routine practice.

4. Understanding of the Problem

In his dissertation, Dr. Stamov has thoroughly examined the historical development of the application of ileostomy in congenital abdominal malformations, the various techniques of its implementation, and the advantages and disadvantages of each method.

In the clinical material, the author has included 62 patients up to one year of age, who underwent enterostomy at the Pediatric Surgery Department of UMHAT "St. Anna" - Varna, covering the period from 2008 to 2021.

5. Research Methodology

The dissertation titled "Method of temporary decompression of the gastrointestinal tract by forming an enterostomy with T-tube in newborns with low and extremely low birth weight", spans 106 pages and includes 29 tables and 54 figures. It adheres to the accepted structural requirements for a dissertation. The chapters included are as follows: Introduction (2 pages), Literature Review (24 pages), Objective and Tasks (1 page), Clinical Material and Methods (14 pages), Results (45 pages), Discussion (3 pages), Conclusion and Findings (3 pages), and Bibliography (6 pages). The bibliography comprises 112 titles in Latin script.

The literature review, spanning 24 pages, is well-structured. It includes a description of the different types of enterostomies, their indications, timing of enterostomy closure, possible complications, and management strategies, as well as the historical development of the technique for creating an enterostomy using a T-tube.

The author's objectives and tasks are clearly defined.

Material and Methods

Dr. Stamov presents the results of the diagnosis and treatment of 62 patients who underwent enterostomy at the Pediatric Surgery Department of UMHAT "St. Anna" - Varna, for the period from 2008 to 2021. The patients are divided into two groups: Group A, where enterostomy was performed with the help of a T-tube, and Group B, where conventional enterostomy was performed.

A detailed demographic characterization of the studied patients is provided. The clinical material is thoroughly illustrated with numerous tables and figures, as well as clinical cases from practice.

In the comparative analysis and discussion of the results, statistically significant differences are noted in terms of operative time, the time to enterostomy closure, complications, and the number of surgical procedures.

Based on the results, conclusions have been drawn that meet the set objectives and tasks.

Contributions and Significance of the Study for Science and Practice

The following contributions of the dissertation are identified:

1. First comparative study on enterostomy using T-tube in intestinal obstruction.

2. Introduced as a routine minimally invasive method for low and extremely low birth weight patients, due to rapid stabilization of acute unstable conditions, reduced operative time, and absence of method-related complications.
3. Proposed generalized literature data on the safety, effectiveness, opportunities, and drawbacks of both methods for enterostomy.
4. Conducted a detailed contemporary literature review on indications for enterostomy, types of stomas, their complications, and closure times.
5. Demonstrated the advantages of the T-tube enterostomy compared to conventional methods as effective, safe, organ-preserving regarding bowel resection, accompanied by fewer complications.

The abstract meets the requirements for a doctoral thesis and reflects the main results achieved in the dissertation. Three published articles related to the research are included. The obtained results have been presented at 4 scientific forums, comprising 3 national and 1 international event.

Conclusion

The dissertation contains scientific, scientifically-applied, and applied results that constitute an original contribution to the field of science and meet all requirements of the Law on the Development of Academic Staff in the Republic of Bulgaria (LDASRB), the Regulation for its Implementation, and the corresponding Regulations of UMHAT "N.I. Pirogov". The dissertation demonstrates that the doctoral candidate, Dr. Petar Stamov, possesses deep theoretical knowledge and professional skills in the scientific specialty of Pediatric Surgery, showcasing qualities and abilities for independent scientific research.

Based on the above, I provide my positive evaluation of the conducted study as presented in the reviewed dissertation, abstract, achieved results, and contributions. I recommend to the esteemed academic jury to award the educational and scientific degree of "Doctor" to Dr. Petar Stamov in the doctoral program of Pediatric Surgery.

Member of the scientific jury:

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Prof. Dr. Penka Stefanova, D.Sc.