

STATEMENT

by Prof. Dr. Antony Tonchev Filipov, MD,

Member of the Scientific Jury appointed by Order No. RD-26-2088/05.10.2022.

UNIVERSITY HOSPITAL „N. И. Pirogov“ - Sofia

Subject:

Procedure for awarding the degree of Doctor of Education and Science to Dr. Edmond Videnov Rangelov for his thesis on

„Current management and application of minimally invasive surgery in the treatment of undescended, nonpalpebre testis in childhood“

in the scientific specialty "Pediatric Surgery" in the professional field 7.1.

Medicine in the field of higher education 7. Health and Sport

Biographical data

Education

Dr. Edmond Videnov Rangelov received his professional qualification of Master of Medicine at the Medical University - Sofia in 1995. After that he acquired two medical specialties - "General Surgery" and "Pediatric Surgery" in 2002 and 2012, respectively. He underwent a number of specialized courses in the field of laparoscopic surgery.

Professional experience and skills

Dr. Rangelov has 18 years of experience as a physician. His professional career began in 1995 at the „R. Angelova“ Hospital in the town of R. Angelova. He started his career in 1995 in Pernik. At present he holds the position of "Head" of the Department of Pediatric Abdominal Surgery at the University Hospital "N.I.Pirogov"- Sofia. He is also a member of the Board of Directors of the University of Sofia. He speaks German and English.

The dissertation

The dissertation topic of Dr. Edmond Rangelov is "**Current management and application of minimally invasive surgery in the treatment of undescended, nonpalpebre testis in childhood**". The text is written in 128 pages and is illustrated with 54 figures and 31 tables. The bibliographic reference comprises 181 sources, of which 180 in Latin and 1 in Cyrillic.

The doctoral student presents and analyzes the use of laparoscopic technique in children with NPT, revealing new possibilities for diagnosis and treatment of this disease. The work demonstrates how, through the improvement of the technical characteristics of minimally invasive technical tools and their mastery by surgeons, laparoscopy has made significant progress in pediatric surgical practice and in the treatment of NPT in particular. The aim of this dissertation is clearly defined: to describe the process of implementation of minimally invasive surgery as a diagnostic and therapeutic method

in the treatment of undescended, nonpalpebre testis and to perform a comparative study against classical surgical methods. The objectives are five :

1. To determine the sensitivity and specificity of laparoscopy in the localization of NPT.
2. To evaluate the therapeutic role of laparoscopy and types of laparoscopic techniques in different types of NPT.
3. To design and implement a diagnostic and treatment management algorithm for children with undescended, nonpalpebre testis.
4. To evaluate early and late outcomes.
5. To analyze the learning curve.

The clinical material includes 96 children with undescended, nonpalpebre testis, unilateral or bilateral, treated in the Department of Pediatric Surgery at the University Hospital "N.I. Pirogov" for the period 2013-2021. With the help of minimally invasive surgery, 43 children with NPT were operated, and 53 children with NPT were operated conventionally. For each patient, included in the study, information was collected through a scorecard with certain indicators containing: general data; anamnestic data - onset of the disease, symptoms, treatment carried out until admission to the ward; clinical data - general and local status; hematological and biochemical tests - hemoglobin, hematocrit, leukocytes, platelets, differential fight, SUE, SRP ; Diagnostic imaging studies - abdominal ultrasonography; surgical treatment - timing of surgery, choice of operative method, intraoperative findings and pathohistological diagnosis; complications, reoperations, length of stay; treatment outcome - quality of life;

The dissertation shows the development of laparoscopy as a minimally invasive surgical method applied in NPT, whose treatment is initially used only as a diagnostic procedure and gradually evolves into a proven therapeutic modality, with the volume of surgical intervention continuously expanding. The study proves that in patients with intra-abdominal testicles and vanishing testis, the laparoscopic technique provided definitive diagnosis, direct surgical approach tailored to the location of the testis and avoidance of unnecessary abdominal exploration in case of "vanishing testis". In cases of associated inguinal hernia (especially in cases with protruding testis), the laparoscopic approach allows simultaneous closure of the internal opening. Laparoscopy clearly demonstrates the anatomy and provides visual information on which a definitive decision can be made, through a useful and safe method for both diagnosis and treatment of NPT.

The dissertant draws 9 conclusions from his study, including the laparoscopic method as the optimal surgical approach; detailed presentation of the anatomy of the abdominal cavity, providing the opportunity for adequate treatment of the pathology found; the possibility of switching to the more atraumatic laparoscopic-assisted surgery compared to conventional surgery; comparable operative time for intra-abdominally located testes and shorter for "vanishing testis" ; advantage in terms of recovery and quality of life; evidence that laparoscopic orchidopexy provides significant success rates, with no significant complications, comparable or less than open surgical technique; reduced postoperative pain and trauma, early dehospitalization and leads to satisfactory long-term outcomes; the use of hormonal treatment in NPT is appropriate only when the testicular localization is specified

and only postoperatively when a high testicular scrotal standing is detected, as the use of hormonal therapies is considered ineffective in the case of a higher postoperative testicular retenuation.

The dissertant has made two types of contributions : scientific and technical and applied - 7 in total. The doctoral student has submitted three full-text articles and seven scientific forum papers as related publications.

In conclusion, I believe that

the dissertation work of Dr. Edmond Videnov Rangelov "**Current management and application of minimally invasive surgery in the treatment of undescended, nonpalpebre testis in childhood**" shows a serious approach to the study of this surgical problem and manages to derive a treatment algorithm for management, which is based on significant information and is useful for the professional environment of those working in this field.

The doctoral student shows a strong scientific background that gives this study a high value. For these reasons, and because the dissertation fully meets the requirements of the law for the Development of Academic Staff in the Republic of Bulgaria and the Regulations for the Development of Academic Staff at the University Hospital "N. I.Pirogov" I confidently recommend the members of the esteemed scientific jury to award the educational and scientific degree of Doctor in the scientific specialty of Pediatric Surgery to Dr. Edmond Videnov Rangelov.

Sincerely,

PROF. DR ANTONII FILIPOV, DM