

# OPINION

from

**Prof. Dr. Vladimir Stavrev, MD, DSc,**

Head of the Department of Orthopedics and Traumatology, Medical University  
- Plovdiv

About dissertation work

for the award of the educational and scientific degree "Doctor"

on the topic:

**"Surgical treatment of scoliosis in childhood - methods for evaluation and analysis of achieved results"**

**Author: Dr. Evgeni Nedev Vlaev**

Form of doctoral studies: independent preparation

The dissertation of Dr. E. Vlaev presented for defense has been developed on 130 standard typewritten pages. The material is illustrated with 89 figures and 14 tables. A specific questionnaire was used - a questionnaire presented as an appendix. The author has proposed a protocol and algorithms for the treatment of patients with scoliosis. The bibliographic reference presents 135 sources - 11 in Cyrillic and 124 in Latin. The doctoral student has 3 scientific publications related to the topic.

The topic of the dissertation is very relevant in the modern approach to the treatment of this disease. The creation of unified and generally accepted protocols for preparation and indications for surgical treatment, preoperative planning and evaluation of the results of surgical treatment of scoliosis will improve these results and thus the overall process of treatment of this disease.

The first chapter presents the disease scoliosis with the pathogenesis of development, its various forms and classifications, methods of treatment. The topicality of the topic is outlined and options for evaluation of the surgical treatment of this disease are presented, presenting the advantages of the proposed by the world orthopedic community specific questionnaire for assessing the quality of life of children with scoliosis: SRS22r.

The purpose and objectives of the study are clearly defined. The tasks are 6 in number, described concisely and lead to the achievement of the goal of the study: to explore the possibilities for qualitative (subjective) evaluation of the results of surgical treatment of children with scoliosis and to implement as a modern approach in the developing of the clinical protocols for evaluation of surgical treatment.

The methodology of the study is described in detail. The design is a retrospective study involving 101 children with various types of scoliosis who underwent surgical treatment at the Clinic of Orthopedics and Traumatology of Tokuda Hospital for the period July 2014 - December 2019.

The vast majority of the scientific work is the presentation of the own results, their discussion by the author and the conclusions provided. A total of 74 pages. Patients were examined with two different forms of assessment administered before surgical treatment and in the late postoperative period. Statistical analyzes of the results of each form of evaluation were made and compared with each other. It is illustrated mainly with originated from the tables grafics, which facilitate the visual perception of information.

Chapter 4 presents a summary analysis of the results obtained from the point of view of the author, compliance with previously stated hypotheses and in places a comparison with the results obtained by other authors. The analysis of the materials was done correctly, with sufficient conclusions from the statistical analysis.

The established correlations against different indicators (in each of the studied groups and between the two groups) are presented.

There are six conclusions, but they are a summary of the discussed results from the obtained statistical data and dependencies.

As especially useful contributions I can point out the protocol for preoperative preparation provided by the author and the algorithms for treatment of surgical treatment of children with scoliosis.

The abstract meets the content of the dissertation and the requirements for its preparation, reflecting only the most important and key points of the whole study.

Critical remarks were made during the presentation such as they do not diminish the merits of the dissertation.

The dissertation is written competently, is structured correctly and affect especially with the current and modern topic of assessing the end result / effect of surgical treatment of scoliosis. I am convinced that the current work is valuable and useful enough for the teams in our country dealing with this pathology.

## **Conclusion:**

I believe that the dissertation presented for defense by Dr. Evgeni Nedev Vlaev on the topic: "Surgical treatment of scoliosis in childhood - methods for analysis and evaluation of results" is relevant and thorough. The work is completed and scientifically meets the requirements of the Law on the Development of Academic Staff in the Republic of Bulgaria and the

Regulations for its application for obtaining the educational and scientific degree "Doctor".

I give my positive assessment and recommend to the members of the esteemed Scientific Jury to support the positively presented dissertation.

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Plovdiv

Prof. Dr. Vladimir Stavrev, MD, DSc