# REVIEW

of a dissertation submitted for the award of the educational and scientific degree "Doctor"

**Title:**

"Comparative Analysis of Techniques for Opening the Anterior Abdominal Wall in Cesarean Section: Misgav Ladach and Pfannenstiel"

Doctoral Candidate: Dr. Boyan Hristov Georgiev

Scientific Specialty: 03.01.45 "Obstetrics and Gynecology"

Scientific Supervisor: Prof. Emil Kovachev, MD, PhD, DSc

Reviewer: Prof. Maria Angelova, MD, PhD, Head of the Department of Obstetrics, Gynecology, and Pediatric Diseases

## Biographical Information

Born in Varna in 1970. Graduated from the Medical University of Varna in 1996. From 1998 to 2002, he specialized in Obstetrics and Gynecology at SBAGAL – Varna, and obtained his specialty qualification in Obstetrics and Gynecology in 2003. He worked as a gynecologist at the General Hospital in the town of Veliki Preslav. From 2003 to 2019, he worked as an OB/GYN physician at MBAL "Maychin Dom" – Varna.

Since 2019, Dr. Georgiev has held the position of OB/GYN physician in the "Maternity Ward" at SBAGAL "Prof. Dr. D. Stamatov," and since 2020 he has been Head of the Maternity Ward at the same hospital. After winning a

competitive selection in 2019, he was appointed as a full-time Assistant Professor in the Department of Obstetrics and Gynecology at the Medical University of Varna.

Dr. Georgiev's scientific and practical interests are in the field of minimally invasive surgery in gynecological practice, operative obstetrics, and ultrasound diagnostics in OB/GYN practice. In 2020, he enrolled in a full-time PhD program with a dissertation topic: "Comparative analysis of techniques for opening the anterior abdominal wall during Cesarean section: Misgav-Ladach and Pfannenstiel," under the supervision of Prof. Emil Kovachev, MD, PhD, DSc.

## Relevance and Significance of the Topic

Cesarean section is one of the most frequently performed surgical interventions in modern obstetrics, with its incidence showing a steady increase over recent decades both worldwide and in Bulgaria. In parallel, there is a growing need to optimize surgical techniques aimed at minimizing operative trauma, reducing blood loss, shortening operative time, and improving early postoperative recovery of the parturient woman.

In this context, the dissertation work of Dr. Boyan Hristov Georgiev is not only relevant but also of pronounced practical significance. The author focuses on a comparative analysis of two widely used techniques for opening the anterior abdominal wall in cesarean section—Misgav Ladach and Pfannenstiel—emphasizing objective clinical indicators that have a direct impact on maternal and neonatal outcomes.

## Volume, Structure, and Literature Review

The dissertation comprises a total of 110 pages and is richly illustrated with 21 graphs, 26 tables, and 14 figures. The bibliography includes 204 literature sources, the majority of which are recent international publications. This demonstrates the doctoral candidate's excellent theoretical preparation and in-depth knowledge of the current state of the problem.

## Aim and Objectives of the Dissertation

The aim of the dissertation is clearly and accurately formulated—to perform a systematic comparative analysis of the Misgav Ladach and Pfannenstiel techniques in operative delivery and to identify the advantages of the Misgav Ladach method over the classical technique.

## Material and Methods

The study was conducted on 327 parturient women delivered operatively during the period 2019–2023. Two clearly defined groups were formed: an experimental group of 215 women operated on using the Misgav Ladach technique and a control group of 112 women operated on using the Pfannenstiel technique.

## Statistical Analysis

Appropriate statistical methods were applied, including hypothesis testing using the z-test and correlation analysis at a level of statistical significance of $p < 0.05$, ensuring the reliability and scientific validity of the results.

## Results and discussion

The obtained results convincingly and statistically significantly demonstrate the advantages of the Misgav Ladach technique. Shorter operative time, faster fetal extraction, and significantly lower blood loss were established compared to the Pfannenstiel technique, with these differences being particularly pronounced in patients with an increased body mass index. The results are in full agreement with data from the international literature, which confirms their validity and applicability.

## Scientific and scientific-applied contributions

The dissertation contains clearly formulated original scientific-applied and confirmatory contributions with high practical value for obstetric practice in Bulgaria. Of particular importance is the demonstration of the better efficiency and economic cost-effectiveness of the Misgav Ladach technique.

## Conclusion

The dissertation represents a complete, methodologically sound, and clinically significant scientific study, demonstrating the author's in-depth theoretical knowledge and excellent clinical training. Based on the presented evidence, I give a positive evaluation of the dissertation and recommend that the Scientific Jury award Dr. Boyan Hristov Georgiev the educational and scientific degree "Doctor" in the scientific specialty 03.01.45 "Obstetrics and Gynecology".

20.01.2026г.

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Заличено на основание чл. 5, §1, б. „В" от Регламент (ЕС) 2016/679

Prof. Maria Angelova, MD, PhD