

REVIEW

By Prof. Dimitar Ivanov Bulanov, MD, PhD
Department of General and operative surgery, Faculty of medicine
Dean of the Faculty of medicine, Medical University – Sofia

On the Dissertation Thesis

"Body Contouring in Patients with Obesity and After Massive Weight Loss"

by Evgeni Vanyov Sharkov, MD - PhD student in an independent form of doctoral studies

for the Awarding of the scientific and educational degree "Doctor"
in the doctoral program "Surgery"

Scientific Supervisor: Assoc. Prof. Alexander Kamenov Zlatarov, MDq PhD

The dissertation has been discussed and approved for public defense by the Departmental Council of the Department of General and Operative Surgery, Medical University – Varna, with decision № 11/21.10.2024.

The topic of the dissertation is relevant and suitable for research. Obesity is a socially significant problem in society, and performing surgical interventions for body contouring has a significant impact on reducing comorbidities in patients. The set of materials and methods used is comprehensive and allows for an accurate assessment of the choice of surgical technique in order to achieve optimal results with minimal risk of postoperative complications. This study stands out both in its healthcare and economic significance when planning surgical interventions for body contouring.

The dissertation is presented in a volume of 211 pages and includes 19 tables and 40 figures.

The literature review is well-structured with the following sections:

- Introduction: Obesity and Overweight; Massive Weight Loss; Classification of Surgical Techniques; Surgical Treatment Methods; Complications – Prevention and Management; Aim and Objectives; Materials and Methods; Results and Discussion; Conclusions; Contributions; List of Publications Related to the Dissertation; Bibliography.

The wide range of surgical techniques, precisely described and selected depending on the preoperative status, is noteworthy. The use of minimally invasive techniques to optimize the final results is one of the advantages of the presented study – short recovery time, minimal risk of surgical complications, and long-lasting results.

The dissertation author clearly formulates the goal: To prove the relationship between adequate preoperative evaluation and better results from the performed intervention. To achieve this goal, the following tasks are set:

1. To conduct a retrospective analysis of patients who underwent surgical interventions between 2015 and 2021 in the Clinic of Plastic-Reconstructive and Aesthetic Surgery at the "Alexandrovska" University Hospital, Sofia, based on the specified criteria.
2. To summarize the data through statistical analysis and identify the derived correlations.
3. To develop a behavior algorithm for performing the listed surgeries.
4. To prepare recommendations for avoiding complications during these surgeries.
5. To establish guidelines for including patients in specific surgical techniques based on their preoperative local and general status.

Dr. Sharkov's study is retrospective and was conducted at the structures of "Alexandrovska" University Hospital – Sofia, covering the period 2015-2021 with a sample of 234 patients. The postoperative follow-up period covers 3 years after the intervention, with an overall postoperative complication rate of 8%.

To solve the tasks, Dr. Sharkov applied a range of methods on the patients included in the study, which highlights the scientific merits of the work.

The results are presented in an appropriate analytical format. The role of weight reduction and the preoperative status in the choice of surgical technique was evaluated, leading to an 8% complication rate in the total of 234 interventions, with a 3-year follow-up period. During 2015-2021, patients who underwent excisional procedures for body contouring were primarily those who had experienced significant weight loss, while those who underwent liposuction-based body contouring techniques were generally young patients without comorbidities or previous surgeries.

The discussion follows the structure of the Results chapter, allowing the reader to clearly understand the place of the author's findings within the context of the global literature. The conclusions, totaling 11, are derived from the results of the study and summarize the findings reliably.

As contributions of the author, I can recognize:

1. For the first time in Bulgaria, a predictive model has been established, based on which, using only age, gender, BMI, and weight loss method, one can be guided in selecting the appropriate technique.
2. For the first time in Bulgaria, an algorithm is presented, which, when followed in choosing a technique based on the local status, minimizes postoperative complications.
3. For the first time, an algorithm is introduced that, in cases of limited in vivo

consultation opportunities, can predict the type of surgical intervention through online telemedicine, thus determining the duration, surgical plan for the day, and the required facilities – public or private practice – for achieving adequate results.

4. For the first time in Bulgaria, an algorithm has been developed that brings immediate economic benefits to the clinic regarding the planning of daily surgical procedures.

5. For the first time in Bulgaria, an algorithm has been developed that brings immediate benefits during pandemic conditions for providing medical services.

Dr. Evgeni Vanyov Sharkov is a respected specialist in Plastic-Reconstructive and Aesthetic Surgery. The dissertation is of high scientific and practical value. Based on this, I have the right to recommend to the highly esteemed Scientific Jury to award Dr. Evgeni Sharkov the educational and scientific degree "DOCTOR", for which I give my positive vote.

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Prof. Dimitar Bulanov, MD, PhD
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