## **Position Statement**

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## On the Dissertation Work

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

by Dr. Evgeni Vanyov Sharkov

for the award of the academic and educational degree "Doctor" in the scientific specialty "Surgery"

Scientific Advisor: Assoc. Prof. Dr. Alexander Kamennov Zlatarov, 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 No. 11/21/10.2024.

The presented set of materials, both in paper and electronic form, complies with the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria (ZRASRB) and the Regulations for the Development of the Academic Staff at the Medical University "Prof. Dr. Paraskev Stoyanov" – Varna.

The topic of the dissertation is relevant and suitable for dissertation work.

The dissertation is presented in a volume of 211 pages and contains 19 tables and 40 figures. It includes the following chapters: Literature Review (7 pages), Aim and Objectives (136 pages), Materials and Methods (137 pages), Results and Discussion (145 pages), Conclusions (203 pages), Contributions (207 pages), List of Publications Related to the Dissertation (209 pages), Bibliography (210 pages). The bibliography includes 51 references.

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 aim is clearly formulated: **To prove the relationship between adequate preoperative** assessment and preparation with improved outcomes from the surgical intervention.

To achieve this goal, the following objectives were set:

- 1. To perform a retrospective analysis of patients who underwent surgical interventions from 2015 to 2021 at the Clinic of Plastic, Reconstructive, and Aesthetic Surgery at UMHAT "Alexandrovska" EAD, based on specified criteria.
- 2. To summarize the data through statistical analysis and identify the derived correlations.
- 3. To develop an algorithm for conducting the specified surgeries.
- 4. To provide recommendations for avoiding complications in these surgeries.
- 5. To establish indicative criteria for patient inclusion based on preoperative local and general status, for the selection of a specific surgical technique.

The methodology of the study is clear and addresses the tasks set out.

The results are presented in an appropriate analytical format. Over a 6-year period (2015-2021), patients who underwent excisional procedures for body contouring were primarily those who had experienced weight loss or massive weight loss, whereas patients undergoing body contouring procedures using liposuction techniques were mostly younger patients without comorbidities or previous surgeries.

The discussion follows the structure of the Results chapter. The conclusions summarize the findings from the study:

- Patients undergoing excisional procedures for body contouring were predominantly those
  who had lost or undergone massive weight loss, whereas those undergoing liposuction
  procedures for body contouring were primarily younger patients without comorbidities or
  previous surgeries.
- 2. Adequate preoperative assessment, including laboratory tests and comorbid conditions, is associated with a statistically significant lower risk of postoperative complications.
- 3. An inverse relationship was observed: in men with obesity and/or after massive weight loss, changes were generally distributed across the entire body, whereas in women, the changes were more often localized to one or more areas and were rarely generalized.
- 4. The method of weight loss is statistically significantly correlated with the age of the patients.
- 5. Preoperative findings are statistically significantly correlated with the gender of the patients.
- 6. The method of weight loss predetermines the local status.
- 7. Local status predetermines the choice of surgical technique.
- 8. The complication rate is not directly related to preoperative BMI, as high BMI values often lead to rejection of the surgical intervention.
- 9. The complication rate depends on the degree of invasiveness.
- 10. A direct relationship and logical sequence exist between preoperative planning and surgical execution, considering gender, age, BMI, weight loss method, and local status, which then influences the choice of surgical technique.
- 11. Adherence to this preoperative algorithm results in a low percentage of postoperative complications.

The contributions of the dissertation are as follows:

- 1. For the first time in Bulgaria, a predictive model has been developed based solely on age, gender, BMI, and weight loss method to guide the choice of technique.
- 2. For the first time in Bulgaria, an algorithm has been proposed that minimizes postoperative complications when followed, by aligning the choice of technique with the available local status.
- 3. For the first time, an algorithm has been proposed that, even with limited in vivo consultation opportunities, can predict the type of surgical intervention via online telemedicine, thereby determining the duration, surgical plan for the day, and the necessary facilities public or private for optimal results.
- 4. For the first time in Bulgaria, an algorithm has been developed that offers direct economic benefits to the relevant clinic and structure in terms of planning the surgical schedule for the day.
- 5. For the first time in Bulgaria, an algorithm has been developed that offers immediate benefits in the provision of medical services during pandemic conditions.

Dr. Evgeni Vanyov Sharkov has extensive experience in the field of "Plastic, Reconstructive, and Aesthetic Surgery". Dr. Sharkov's name is associated with high professionalism and respected teaching abilities. The dissertation is of significant scientific and practical value. Based on this, I have the right to propose to the esteemed Scientific Jury to award Dr. Evgeni Sharkov the academic and scientific degree "DOCTOR."

25.11.2024 Prof. Dr. Nikola Kolev, PhD, DSc