

## **Comparison of Different Laparoscopic Sacrocolpopexy Procedures: A Retrospective Dual Center Analysis**

Marian Botoncea<sup>1</sup>, Călin Molnar<sup>1</sup>, Valeriu Şurlin<sup>2</sup>, Daniel Preda<sup>2</sup>, Claudiu Varlam Molnar<sup>3</sup>

<sup>1</sup>First Department of Surgery, G.E. Palade University of Medicine, Pharmacy, Science, and Technology of Târgu Mureş, Romania

1st Surgical Clinic, Emergency Clinical County Hospital Târgu Mureş, Târgu Mureş, Romania

<sup>2</sup>7th Department of Surgery, University of Medicine and Pharmacy of Craiova, Craiova, Romania

1st Surgical Clinic, Clinical County Emergency Hospital of Craiova, Craiova, Romania

<sup>3</sup>Department of Obstetrics and Gynecology, G.E. Palade University of Medicine, Pharmacy, Science, and Technology of Târgu Mureş, Romania

1st Obstetrics and Gynecology Clinic, Emergency Clinical County Hospital Târgu Mureş, Târgu Mureş, Romania

### **Abstract**

*Introduction:* Pelvic organ prolapse (POP) affects up to 50% of women and has a significant impact on quality of life. Abdominal sacrocolpopexy is the gold standard treatment for vault prolapse and laparoscopic sacrocolpopexy has many advantages. This study aimed to compare the results of two laparoscopic sacrocolpopexy procedures performed at two different surgical centers.

*Materials and methods:* The primary objective of this retrospective study was to assess surgical feasibility and complication rates associated with sacrocolpopexy procedures performed at Center A (using self-fixating mesh) and Center B (using sutured mesh). Secondary objectives included assessment of length of hospital stay, readmission rates, and surgical outcomes. The study included patients treated between January 2019 and October 2023.

*Results:* Thirteen patients, six from Center A and seven from Center B, were included. Patient characteristics, such as age and body mass index, were similar between the two groups. Operative time and length of stay were not significantly different. Center A reported one postoperative complication (mesh erosion), which occurred two years after surgery and required laparoscopic intervention. Center B also reported one conversion to laparotomy because of metabolic acidosis and hypercapnia.

*Conclusion:* The two laparoscopic sacrocolpopexy techniques were safe and effective for treating POP and our study confirmed the importance of mesh and fixation choices. Further research is needed to improve understanding of these surgical techniques.

**Key words:** pelvic organ prolapse, laparoscopic sacrocolpopexy, mesh complication, self-fixating mesh