

### **Open and Laparoscopic Surgical Approaches in Incisional Hernias: A Descriptive Analysis**

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#### **Abstract**

**Background:** Incisional hernias, occurring in 10-20% of patients post-abdominal surgery, significantly affect patient quality of life and healthcare systems. This study analyses two hernia repair methods: laparoscopic intraperitoneal onlay mesh (IPOM) and open on-lay hernioplasty. Key analysis factors include operative time, postoperative pain, complications, length of hospital stay, recovery speed, and recurrence rates, with the goal of identifying the most effective and beneficial approach for patients.

**Methods:** We conducted a retrospective study on 70 patients with postoperative parietal defects at the Dr Carol Davila Clinical Nephrology Hospital, Bucharest, from January 2018 to December 2021. Patients underwent either laparoscopic IPOM (42 patients) or open hernioplasty (28 patients) for uncomplicated incisional hernia repair. We analyzed demographic data, comorbidities, defect size and location, previous surgeries, and surgical outcomes.

**Results:** The laparoscopic group had a slightly shorter operative time and significantly lower postoperative pain levels, as assessed by the Visual Analog Scale. The laparoscopic approach also resulted in shorter hospital stays and quicker return to routine activities. Complications, such as seroma and hematoma, were more common in the open surgery group, but no wound infections or prosthesis rejections were observed in either group. Notably, the open surgery group showed a higher recurrence rate (11 %) compared to none in the laparoscopic group within a one-year follow-up.

**Conclusion:** Laparoscopic IPOM for incisional hernia repair shows benefits over open hernioplasty, with less pain, shorter hospitalization, faster recovery, and lower recurrence. Its growing preference and potential for further research are highlighted.

**Key words:** incisional hernia, incisional hernia recurrence, IPOM laparoscopy, supraaponeurotic hernioplasty