The Impact of Surgeon's Experience in Abdominal Wall Hernia Repair: A Systematic Review

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Introduction

- The level of experience of a surgeon is a fundamental factor for improving postoperative outcomes, however, evidence regarding the impact of this experience for hernia repair is limited.
- We aimed to perform a systematic review assessing surgeon's experience and hernia repair.

Methods

- PubMed, Cochrane, Lilacs, EMBASE, and Scielo databases were searched without language or date restrictions from inception to January 2024 by two authors.
- We included patients ≥ 18 years old, undergoing both ventral hernia repairs (VHR) and inguinal hernia repairs (IHR).
- Outcomes included were surgeon's annual volume or total volume, and reoperation, recurrence, and complications.

15,879
Studies were retrieved from the primary search

→ **8 studies** were included in the analysis

→ **205,127 patients included**

Inguinal Hernia Repair
197,127 (96.1%)

Ventral Hernia Repair
7,999 (3.9%)

MAIN FINDINGS

- ✓ **81.7% of cases were open and 18.5% were laparoscopic.**
- ✓ **Recurrence for laparoscopic approaches ranged between 1% to 4.3% for surgeons with annual volume of surgeries <25, and reduced to 0.7% to 1.2% for surgeons with annual volume of surgeries >25.**
- ✓ **Among surgeons with total life volume >500 procedures, recurrence rates ranged between 0.6 to 3%, compared to 2 to 2.2% for surgeons with total life volume <500 procedures.**
- ✓ **Reoperation for IHR ranged between 2 to 2.6% for annual volume <25 and between 1.2 to 2.6% for annual volume >25.**
- ✓ **Reoperation rates were 2.9% for VHR with annual volume <9 and reduced to 2% for annual volume >30.**
- ✓ **Surgeons with annual volume <25 presented more intraoperative complications (1.3 to 5.6%), compared to >25 (0.9 to 1.2%).**
- ✓ **Postoperative complications were higher among annual surgeon volume <25 (2.2 to 35.9%) compared to annual volume >25 (4.9 to 13.3%).**

Conclusion

- Higher surgeon's experience, with annual volume >25 and total volume >500 procedures, might be related to lower recurrence, reoperation, and intraoperative and postoperative complications.

References

Montefiore
HEALTH SYSTEM