UNIDADE LOCAL DE SAÚDE SÃO JOSÉ

ROBOTIC VS. LAPAROSCOPIC SACROCOLPOPEXY WITH ANTERIOR AND POSTERIOR MESH PLACEMENT:

A comparative 12-Month follow-up study in a single tertiary center

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Hypothesis

Compare **robot-assisted sacrocolpopexy (RASC)** vs. **laparoscopic sacrocolpopexy (LSC)** with anterior & posterior mesh placement for pelvic organ prolapse (POP) correction over 12 months.

Methods

Retrospective cohort, single tertiary center; all surgeries by or under supervision of same senior surgeon.

Primary endpoints:
- Objective success (POP-Q)
- Subjective success (PFIQ-7, Wexner score)

Secondary endpoints:
- Operative time, blood loss, hospital stay
- Complications ≥ Clavien-Dindo II
- Mesh-related complications
- Reinterventions

KEY RESULTS

N=44 (RASC: 23 | LSC: 21)

Operative time: Shorter in **LSC** (198 min vs. 221 min, p=0.19)

Blood loss: Similar (~58 mL)

Length of stay: Shorter in **LSC** (1.17 vs. 2.33 days, p=0.001)

Objective success at 12 months:

RASC 100% LSC 85.7%

Reoperation rate:

RASC 0% LSC 14.3% (p=0.06)

Complications: Comparable rates; No mesh-related complications.

PATIENT REPORTED OUTCOMES:

PFIQ-7 total score:
No significant difference

CRAIQ-7 section:
Significantly better in **RASC** (38.4 vs. 52.9; p<0.001)

"RASC has similar safety and effectiveness to LSC, but faster recovery and better Patient-Reported Outcomes (PROs), specially in terms of Colorectal-anal function."

Conclusions

Both approaches are **safe and highly effective** for POP repair with mesh.
RASC demonstrated:
- Trend toward higher success rate
- Faster recovery (shorter hospital stay)
- Significant improvement in colorectal–anal function (CRAIQ-7)

RASC should be considered when aiming for rapid recovery and improved pelvic function.
Larger prospective studies are needed to confirm these benefits long-term.

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