A Medium-Term Comparison of Quality of Life and Pain After Robotic or Laparoscopic Cholecystectomy

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BACKGROUND

- Robotic-assisted procedures have gained popularity
- Conventional laparoscopic approach for cholecystectomy remains standard of care
- Previous studies have demonstrated similar results in short-term outcomes of laparoscopic vs robotic approach, however results on medium-term outcomes remains limited

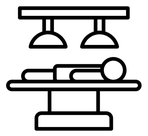
OBJECTIVE: To compare medium-term outcomes between both techniques using validated quality of life and pain assessments.

METHODS

1. Operative Period



Cholecystectomy



Laparoscopic or Robotic

Case Selection Criteria

Elective outpatient case
↓
Age 18+
↓
Cholecystectomy only
↓
Exclude cases converted to open

2012 to 2017

2. Data Collection



Telephone Survey



Quality of Life (SF-20)[a]



Pain (SF-MPQ-2)[b]

2019

3. Analysis

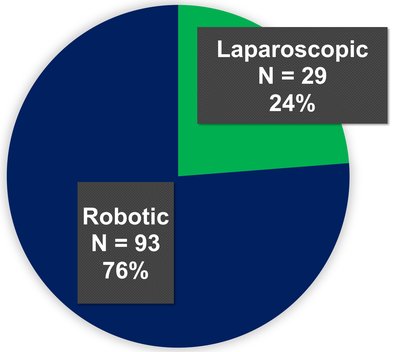


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[a]Medical Outcomes Study Short Form 20 (SF-20)
[b]Short Form McGill Pain Questionnaire 2 (SF-MPQ-2)

RESULTS

Surgical Approach (N = 122)

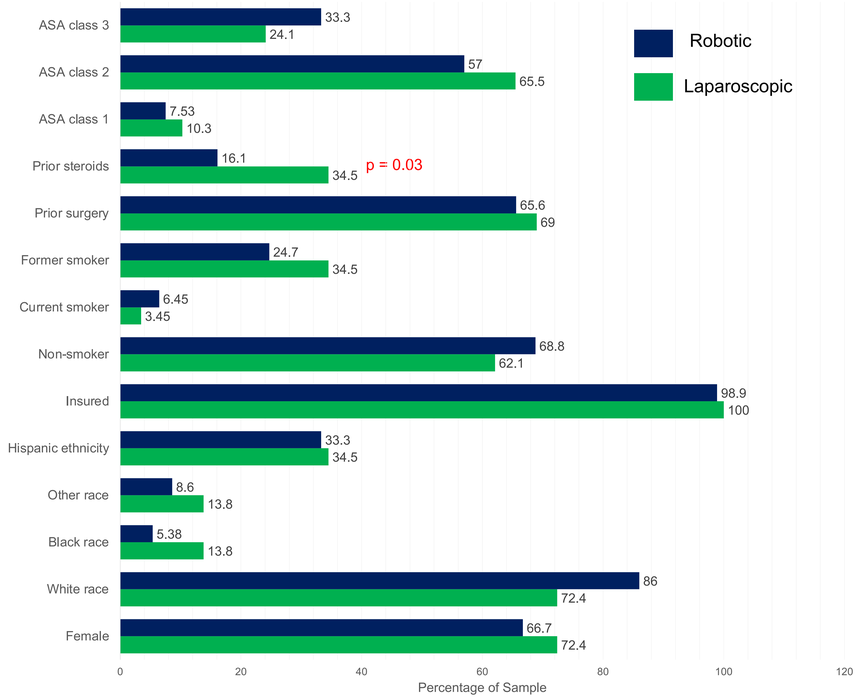


1. No overall significant difference in quality of life between groups

2. Compared to the robotic group, the laparoscopic group had higher severity of:
   - "tiring-exhausting pain" (p = 0.04)
   - "electric-shock pain" (p = 0.003)
   - "shooting pain" (p = 0.05)

3. "Overall intensity" of pain in the "gallbladder region" between groups was similar (p = 0.31)

Patient demographic, health and comorbidity characteristics



Age, BMI, Charlson comorbidity index, prior radiotherapy, prior chemotherapy, and immunosuppression are not listed

CONCLUSIONS

- Quality of life over 2 to 7 years following time of surgery is comparable for robotic-assisted versus conventional laparoscopic cholecystectomy
- The laparoscopic approach may be associated with a higher severity of subset categories of pain, but overall pain between the two approaches is comparable

LIMITATIONS

- Single institution
- 35.9% (122/340) survey response rate
- Limited comorbidity assessment
- Tendency for surgical approach selection to be based on surgeon's preferred technique