Single-Incision Laparoscopic Surgery
Appendectomy:
A 157 Patient Case Series
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Outline
• Define single incision laparoscopic surgery (SILS)
• Ask the question “Is SILS a viable alternative to 3-port appendectomy?”
• Report KP East Bay SILS appendectomy experience
• Define the role for SILS in appendectomy
• Conclusion

Commercial Devices: Single Incision Surgery
SILS Port-Covidien Gelpoint – Applied Medical


$50
Question
• Is single incision laparoscopic surgery for appendectomy a safe and viable alternative to traditional 3-port laparoscopic appendectomy for the community surgeon?

Hypothesis
Single incision laparoscopic appendectomy is safe and efficient for the community general surgeon.

Methods
• April 2010 – November 2013
• Three surgeons
• Consecutive SILS appendectomy (n = 157)
• Routine postoperative follow-up
  – Telephone after visit unless an in person office visit preferred by the patient
• Prospective database entry
  – Date, Age, BMI, operative time, EBL, follow up

Demographics

<table>
<thead>
<tr>
<th>SILS Appendectomy</th>
<th>157</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>82</td>
</tr>
<tr>
<td>Female</td>
<td>75</td>
</tr>
<tr>
<td>Age (years)</td>
<td>38 (range: 11 – 86)</td>
</tr>
<tr>
<td>BMI (kg/m²)</td>
<td>26.3 (range: 17.4 – 43.5)</td>
</tr>
</tbody>
</table>

Operative data

| Operative Time (minutes) | 49 (range: 11 – 127) |
| EBL (mL)                | 25.1 +/- 36.8 |
Operative Times Over Series

Operative Times by Body Mass Index

BMI Optimes

Surgeon1 Operative Times for 107 Cases

SILS Appendectomy & Pregnancy?

- 5 pregnant patients
- Gestational age range: 15 – 32 weeks
- Operative times: 45 minutes (range 37 – 52)
- No conversions
- No loss of pregnancy
### Complications

<table>
<thead>
<tr>
<th>Complication</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTALS</td>
<td>4</td>
<td>2.5</td>
</tr>
<tr>
<td>Wound infection</td>
<td>3</td>
<td>1.9</td>
</tr>
<tr>
<td>Superficial bleed</td>
<td>1</td>
<td>0.6</td>
</tr>
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</table>

### Conclusion

- SILS appendectomy is **safe**.
- SILS is **efficient**.
- SILS appendectomy may be used as the **primary approach** for appendectomy by a community surgeon.

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