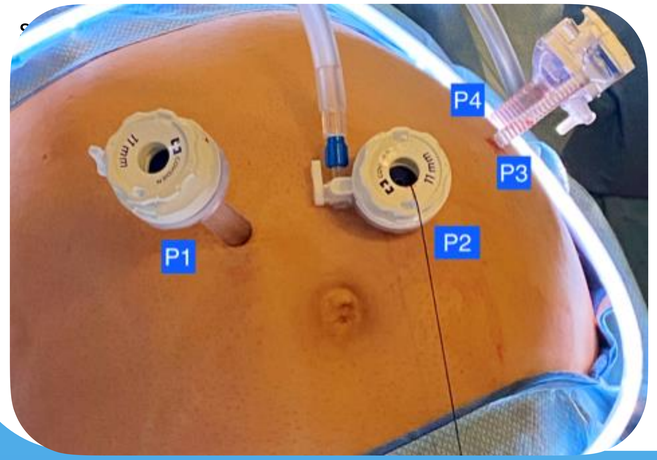
The Human Mirror: Modified Laparoscopic Cholecystectomy Technique for Situs Inversus Totalis

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Case Discussion

- ◇ Situs inversus totalis (SIT) - rare congenital anomaly characterized by complete inversion of normal anatomy
- ◇ SIT patients with biliary pathology pose a technical challenge due to reversal of anatomy, necessitating adaptability to a modified laparoscopic cholecystectomy (MLC) technique
- ◇ Versatility, proficient anatomic knowledge, close attention to detail and precise hand-eye coordination are essential
- ◇ Case: 42 yo male with left-sided abdominal pain and vomiting. CT consistent with acute cholecystitis in the



Technique

- ◇ Traditional OR setup: surgeon on patient left, monitor above patient's right shoulder
- ◇ RUQ Veress followed by periumbilical optical entry
- ◇ 4 Port configuration:
  - ▸ 11mm R mid-clavicular (P1)
  - ▸ 11mm Periumbilical (P2)
  - ▸ 5mm L mid-clavicular (P3)
  - ▸ 11mm L anterior axillary line (P4)
- ◇ Instrument placement:
  - ▸ 10mm 45° laparoscope (P2)
  - ▸ Fundal retraction grasper (P1)
  - ▸ Infundibulum manipulation (P3)
  - ▸ Dissection instrument (P4)
- ◇ Obtain critical view of safety: lateral to medial dissection of Calot's triangle, staying close to gallbladder wall
- ◇ 10mm clip applier (P4): cystic artery and duct ligation and transection after careful identification
- ◇ Dissection of gallbladder from cystic plate via P3

Discussion

- ◇ Port placement must be tailored to inverted anatomy to prevent hand/instrument crossing and facilitate use of surgeon's dominant hand
- ◇ Operating from left supports right-hand dominant dissection, abating the need for complete mental reorientation
- ◇ 10mm 45° laparoscope augments visualization

Conclusion

◇While technically challenging, application of MLC in patients with SIT is safe and feasible with surgeon adaptability, meticulous attention to detail and hand-eye coordination, and sound anatomic knowledge.

