

SINGLE-INSTRUMENT THORACIC AND ABDOMINAL SURGERY IN CHILDREN: MINIMIZING MINIMALLY INVASIVE SURGERY

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The use of single-port surgery is widely accepted in Pediatric Surgery, but the majority of reports are on its use for appendectomy or inguinal hernia repair with the use of multiple instruments. Here we demonstrate that both thoracic and abdominal single-instrument procedures are feasible and safe in children.

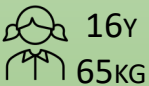
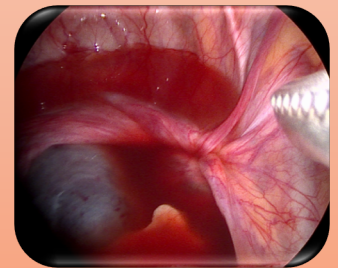


8y

44kg

**OVARIAN
TORSION**

- ☐ Left ovarian torsion (first episode)
- ☐ Device: 10-mm 0° with inbuilt 6-mm working channel
- ☐ Access: umbilicus | Instrument: grasper
- ☐ Curious feature: use table tilting to help untwisting!
- ☐ Operative time: 90min



16y

65kg

**THORACIC
EMPYEMA**

- ☐ Right pleural empyema secondary to pneumonia
- ☐ Device: 10-mm 0° with inbuilt 6-mm working channel
- ☐ Access: 6th intercostal space | Instrument: suction
- ☐ Curious feature: don't rush! Take time to remove all pus/fibrin without injuring the lung parenchyma.
- ☐ Operative time: 180min



9y

24kg

**SECONDARY
INTUSSUSCEPTION**

- ☐ Bowel obstruction due to Meckel's intussusception
- ☐ Device: 10-mm 0° with inbuilt 6-mm working channel
- ☐ Access: umbilicus | Instrument: grasper
- ☐ Curious feature: reduce intussusception and then exteriorize bowel through enlarged umbilical incision
- ☐ Operative time: 100min

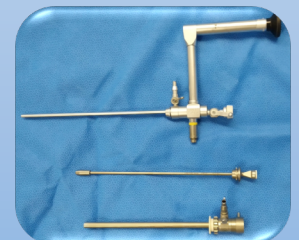


13y

38kg

**PALMAR
HYPERHIDROSIS**

- ☐ Primary palmar hyperhidrosis
- ☐ Device: 5-mm 6° with inbuilt 3-mm working channel
- ☐ Access: 4th intercostal space | Instrument: dissector
- ☐ Curious feature: hide the incision in the armpits!
- ☐ Operative time: 120min



This is a unique report on single-port single-instrument use in four completely different procedures and the first to describe its usage for thoracoscopic sympathectomy in children.