

Hendren Project Position and Access



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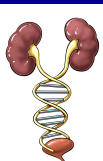


SickKids

Challenges

- Developing sufficient skill level
- High expectations too early
 - Appropriate application of novel techniques

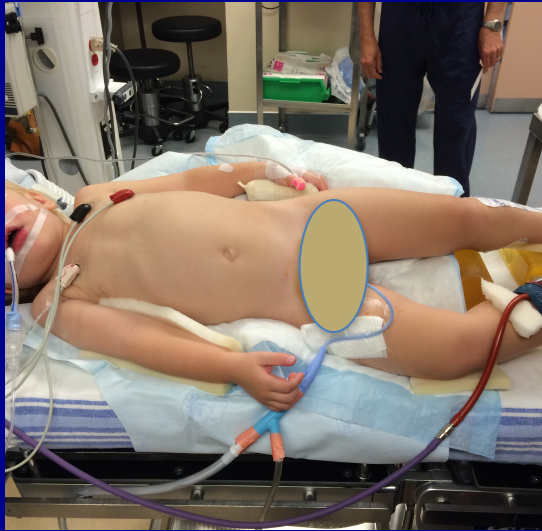
MAS: Ergonomic and instruments availability
+ educated on the mechanism



MAS in Children

Pediatric urology is not pediatric surgery

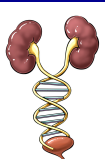
At least in North America



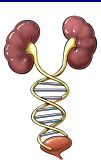
MAS Controversy

Mini-open and lap-assisted approaches

- Age
- Operative Time OT
- Length of Stay LOS
- Surgeons' factors
 - Robotic training
 - No MAS training

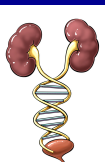


Position and trocar location

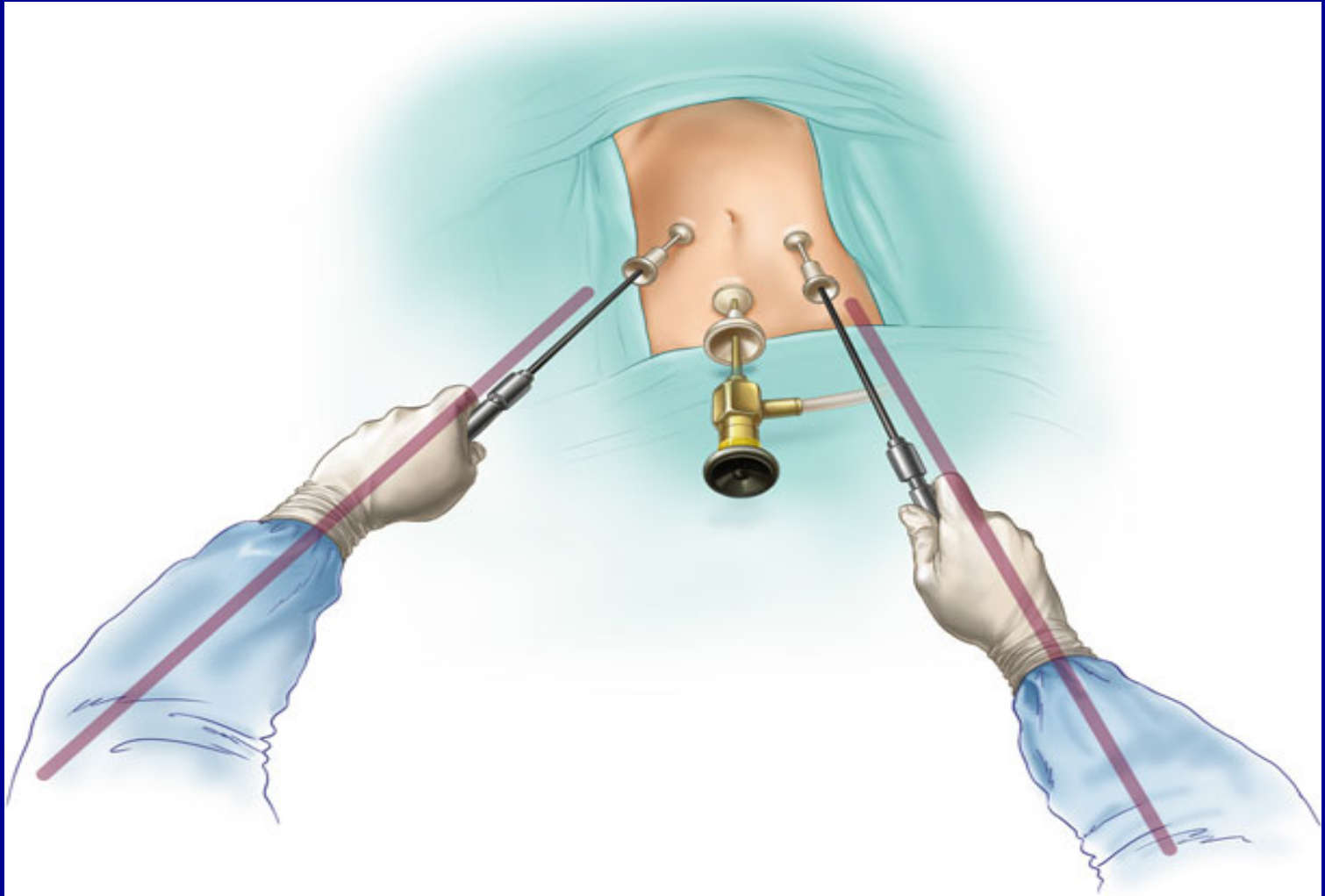


MAS-based Procedures

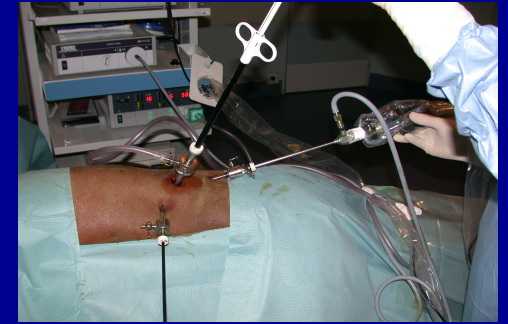
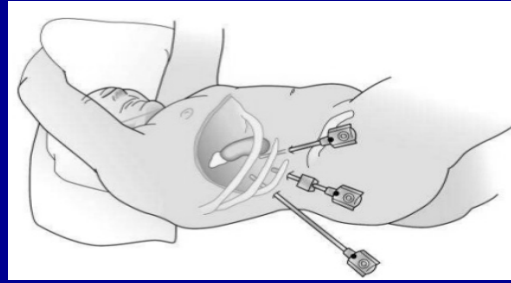
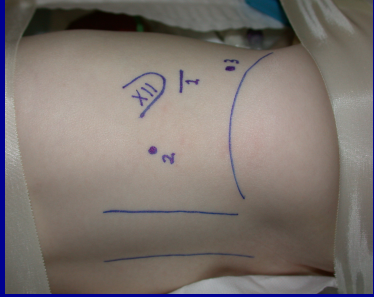
– Orchidopexy	COMMON
– Pyeloplasty	COMMON
– UT: stones/UU	COMMON
– Varicocelelectomy	LESS COMMON
– Nephrectomy (T/P)	UNCOMMON
– LT: reflux or recon	UNCOMMON



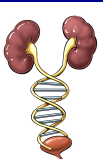
The diagram illustrates a patient on a ventilator with two monitors. The top monitor displays vital signs: Heart rate (124), Blood pressure (121/77), Pulse oximetry (93), and Temperature (36.0). The bottom monitor displays respiratory data: PEEP (21), Respiratory rate (32), Airway pressure (12), and Capnography (16). Other parameters shown include NO₂ (0.80), Sevoflurane (1.8), Pressure controlled ventilation (2.4), and Druck Kontr (5).



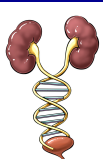
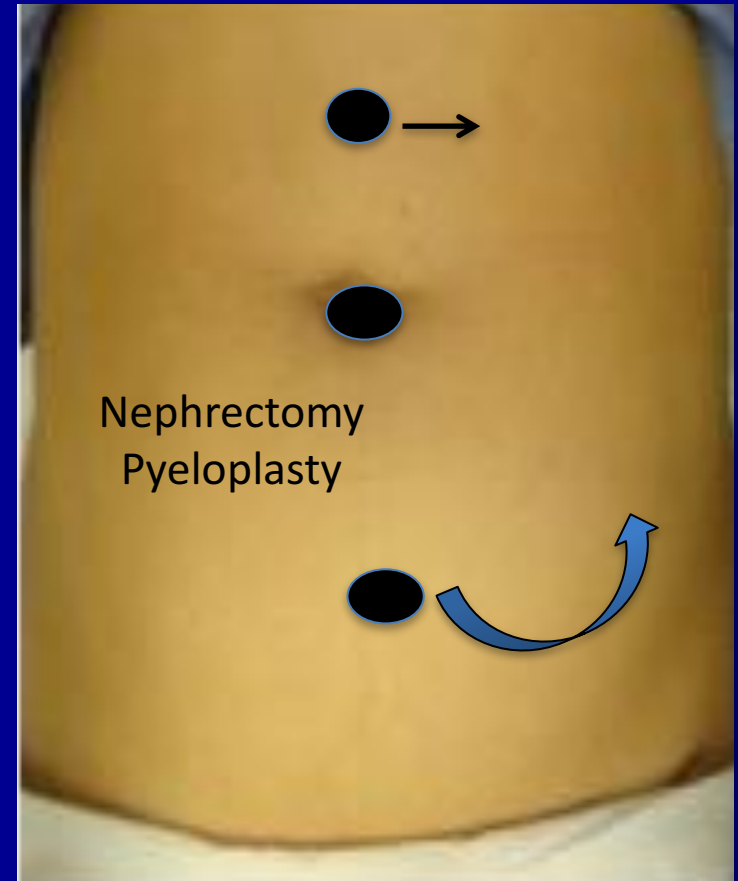
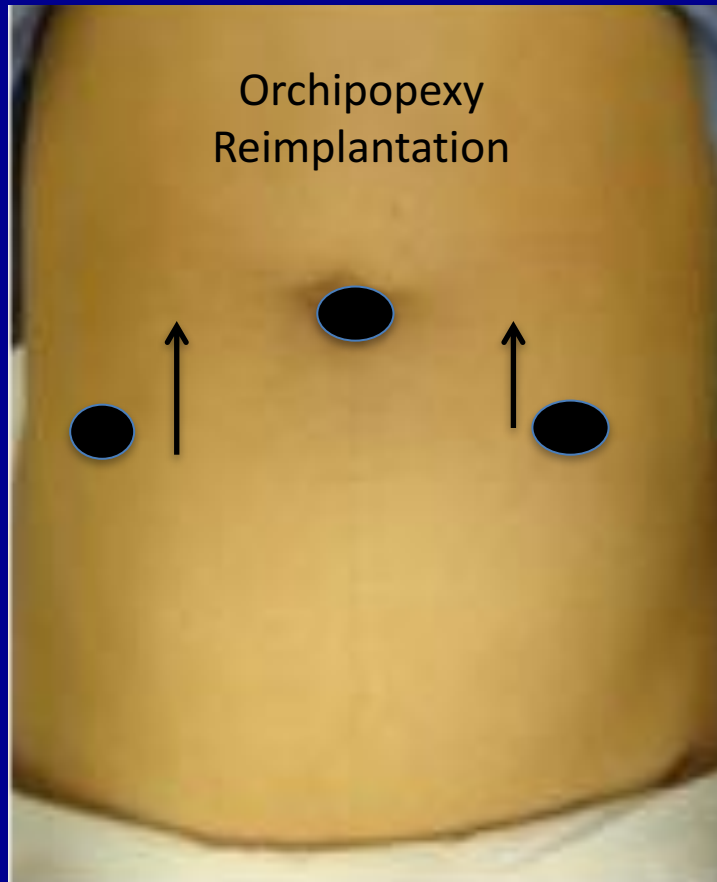
Retroperitoneoscopic Approach



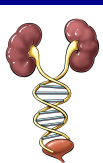
- Shallow angle between instruments
- Collision and crossing
- Proximity of surgeons/ assistants
- One hand dissection
- Difficulty with suturing



Patient Rotated Accordingly



Patient-Head Down



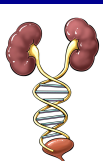
Patient Selection: Candidates for Laparoscopy

- Who are candidates?
- What it is the best approach for the patient: mini-open, mini-invasive and laparoscopy
- (Relative) Contraindications:
 - Hemodynamic instability
 - Severe adhesions
 - Cardiopulmonary compromise
 - Coagulopathy



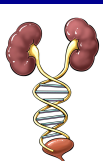
Patient Selection

- Caution:
 - Chronic infection
 - Chronic perirenal inflammatory conditions
 - Large hydronephrotic kidneys that occupy working space
 - Prior abdominal surgery



Patient age

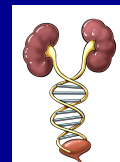
- Infants and younger children:
 - Smaller working area
 - Morbidity may not be significantly reduced
 - Utility and practicality in this group is at the surgeons discretion
 - increased experience and technology advances



The Approach: Transperitoneal versus Retroperitoneal

Surgeons preference and abilities

- Transperitoneal:
 - Larger working space
 - Anatomical familiarity
 - Most procedures best suited for TP approach
- Retroperitoneal (Renal/Adrenal):
 - Prior abdominal surgery
 - Peritoneal dialysis catheter, ostomies
 - May give better access to adrenal and upper pole



Technical Tips and Tricks

- Manage space
- Less trocars
- More hitch stitches
- Scopes (30 or 0 degrees)

