

PE77 Rare and special robotic surgery indications in the pediatric population: Ectopic organs and differences of sexual development

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Introduction & Objectives: Differences of sexual development (DSD) affect the development of internal reproductive organs and external genitalia. Ectopic kidney is a rare and challenging pathology causing amongst others incontinence and recurrent urinary tract infections. Those pathologies may in certain cases be an indication for surgery. This manuscript aims to evaluate the role of robot-assisted laparoscopy in the surgical treatment of patients with ectopic kidneys or DSD.

Materials & Methods: A prospective database is maintained in a tertiary referral center with all robotic surgeries performed in children. From this database, a prospective series of robot-assisted resection of embryologic remnants located in the pelvis was extracted: resection of a prostatic utricle cyst (fig. 1), removal of an ectopic non-functional kidney (fig. 2), and resection of a hemi-uterus (fig. 3).

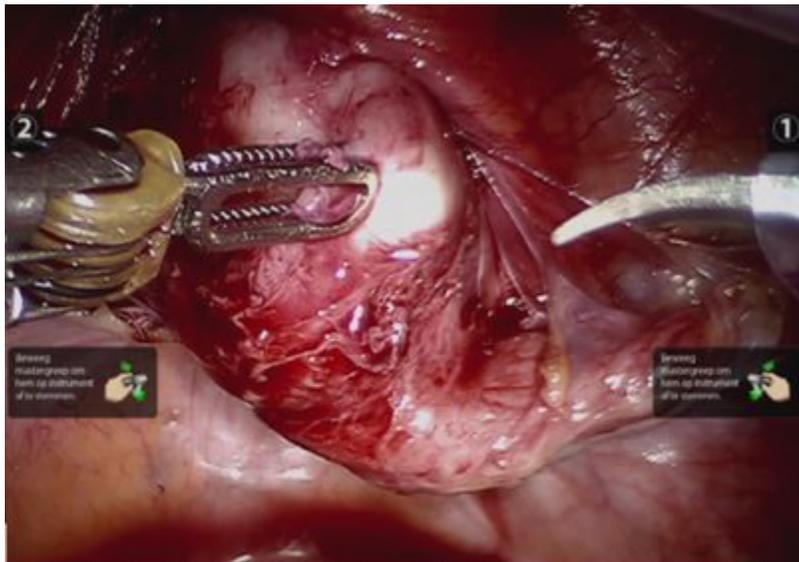


Figure 1: The identification of the utricle cyst at the posterior bladder wall, improved with cystoscopic illumination of the cyst.

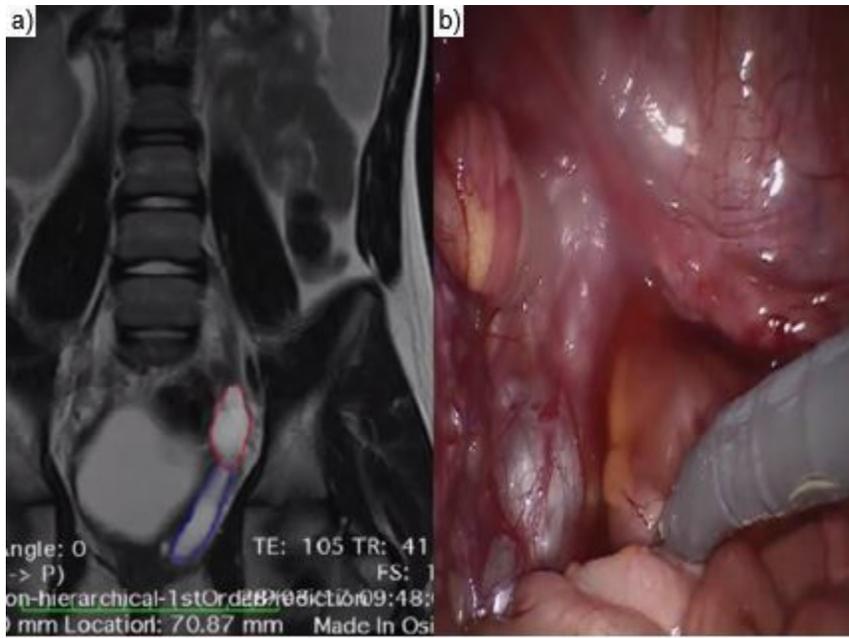


Figure 2: a) MRI study showing the ectopic pelvic kidney and the ipsilateral ureter. b) Robot-assisted laparoscopic view of the ectopic pelvic kidney).

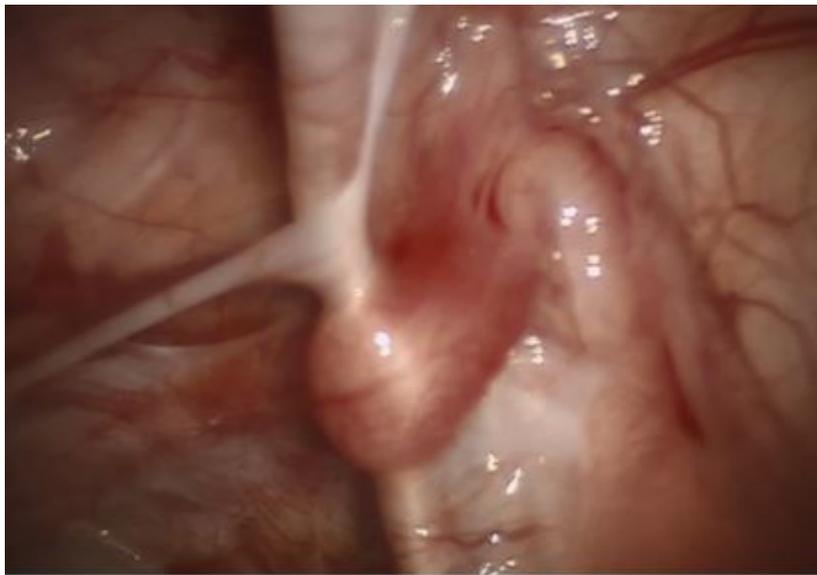


Figure 3: Gonadal structure at the level of the internal inguinal ring and a hemi-uterus.

Results: From an initial database including 72 patients, 6 patients met the inclusion criteria. Three male patients presenting with utricle cysts, 2 young girls presenting with ectopic kidneys, and one young boy with pelvic embryological remnants of the uterus, were further evaluated.

Conclusions: Surgical treatment of patients with DSD is safe, feasible, and a good indication for robot-assisted laparoscopic surgery, as both deep dissection and reconstruction in a limited surgical field are requested.