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CLINICAL VIGNETTE

A case report of laparoscopic pectopexy in a patient with an ectopic kidney and POP-Q III grade apical prolapse

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Short title: Laparoscopic pectopexy in ectopic kidney and POP-Q III grade apical prolapse

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A 70-year-old woman [gravida 2, para 2, body mass index (BMI) 27 kg/m^2] was referred to the hospital due to clinically symptomatic POP-Q III grade apical prolapse (Aa –1, Ba +2, C +5, Ap –2, Bp –2; TVL 9 cm). The patient presented with a congenital renal anomaly: asymptomatic, left pelvic kidney located below the iliac fossa, with the left ureter located approximately 4 mm from the uterus (confirmed by a preoperative CT scan — supplementary material). The patient completed the PFDI-20, PFIQ-SF, and ISI questionnaires at baseline and one month postoperatively, and reported no symptoms of urinary or fecal incontinence.

Medical history revealed the following comorbidities: hypertension, paroxysmal atrial fibrillation, ulcerative colitis, and colonic diverticulosis. The patient underwent uterine curettage before pectopexy, which is a standard procedure at our center if the uterine corpus is to be removed. Preoperatively, a vaginal cube pessary was attempted but this conservative management was ineffective due to intolerance of the pessary and pain, which significantly affected the quality of the patient life.

Laparoscopic pectopexy was performed, as described in the literature [1]. Total operative time was 155 min., and included adhesion dissection, removal of the uterine corpus with the right adnexa, and suturing of a synthetic mesh (polypropylene, 20/35 × 159 mm) to the cervical stump (4 nonabsorbable, braided, polyester sutures) and iliopectineal ligaments (1 braided, polyester suture). At the final stage of the surgery, total mesh peritonization was performed using absorbable, continuous intracorporeal suturing (Fig. 1). The postoperative course was uneventful. The patient was discharged on postoperative day 2. At one-month follow-up, urogynecologic examination revealed no evidence of apical prolapse recurrence (Aa –3, Ba –3, C –8, Ap –2, Bp –2; TVL 9 cm) and the patient had no complaints.

To the best of our knowledge, this has been the first report about a laparoscopic pectopexy in a patient with congenital renal anomaly. Considerable interest in the topic of apical defect and a growing number of reports about complications following sacrocolpo(cervico)pexy prompted the researchers to search for new and effective methods of apical defect treatment [2–4]. Sacrocolpo(cervico)pexy is not recommended in patients with obesity and limited access to the promontory, e.g., in case of colonic diverticulosis [5]. The worldwide incidence of ectopic kidney has been estimated at approximately 1 in 1000 live births [6]. The choice of surgery in such patients should take into consideration possible complications associated with the presence of an ectopic kidney [7]. In our case, we believe that laparoscopic pectopexy will not affect any future surgical treatment due to renal causes. Additional, safety-related procedures like peritonization of the synthetic mesh may reduce the risk of complications such as mesh exposure, organ perforation, or future urinary or bowel issues.

In summary, laparoscopic pectopexy seems to be a promising surgical treatment for apical defect in patients with congenital kidney defects.

Conflict of interest

The authors declare no conflict of interest.

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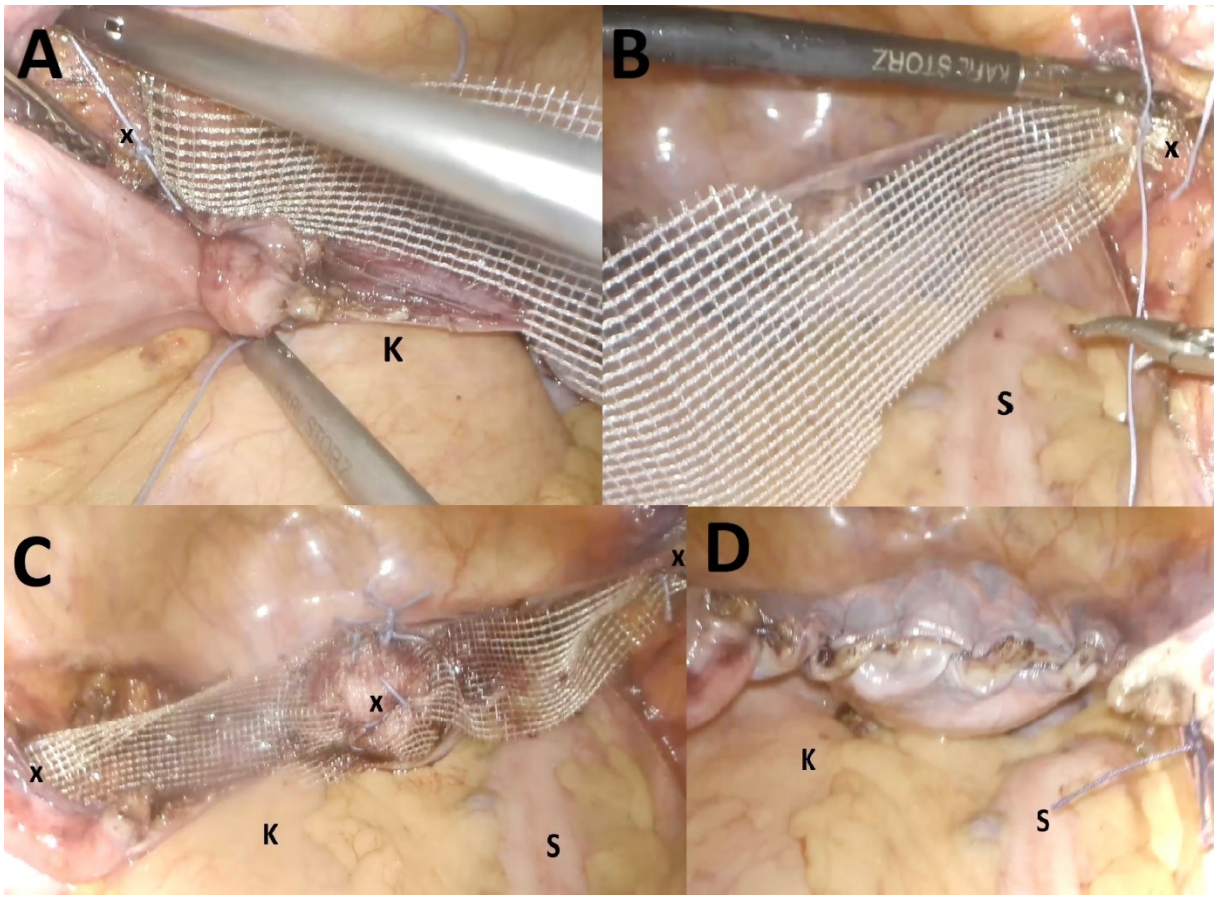
Figure 1. Laparoscopic pectopexy: mesh fixation to the left (**A**) and right **(B**) iliopectineal ligaments (x), to the cervical stump (**C**) and the final view (**D**) of the operation; K — ectopic kidney; S — sigmoid colon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