Laparoscopic Boari flap formation in advanced ovarian carcinoma

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OBJECTIVE

To demonstrate laparoscopic ureteric reconstruction with formation of a Boari flap.

METHODS

We present video footage of a laparoscopic Boari flap formation in a patient with previous extensive primary debulking surgery and stenosis of a prior excision of the distal ureter with a Boari flap and stabilizing psoas hitch formation.¹ The woman underwent adjuvant chemotherapy for stage IIIC high grade serous ovarian cancer and presented subsequently with ureteric stenosis.

RESULTS

The animation in the video outlines the key steps of this laparoscopic procedure, including identification of the ureter at the bifurcation of the common iliac artery, and ureterolysis to mobilize the ureter caudally from the pelvic side wall and the external iliac vein. We guide the surgeon as the bladder is placed on traction anteriorly and avascular peritoneal planes are identified and dissected, and the bladder mobilized bilaterally. The bladder is then filled to optimize cold-cutting (to avoid thermal injury) of a U-shaped incision of the anterior bladder to outline the Boari flap. We illustrate transection and spatulation of the ureter before re-implantation into the mucosa of the Boari flap, with demonstration of the interrupted intracorporeal suturing technique. A double J stent (24/7 French) is cystoscopically inserted through the bladder into the ureter over a guide wire. We show tubularisation of the flap and closure of the bladder with interrupted intracorporeal suturing techniques.

The indwelling urinary catheter was removed at 6 weeks and the ureteric stent was removed at 12 weeks post-procedure. A follow-up cystogram demonstrated bladder integrity. The woman is now 1 year post-procedure and remains asymptomatic with normal renal function biochemistry and ultrasound.

Laparoscopic Boari flap formation is described in the literature with excellent success rates.^{2,3} To our knowledge this is the first report in a patient with

Video 1 Still images of laparoscopic.

stenosis of a prior Boari flap formation during initial debulking surgery that was followed by adjuvant chemotherapy for advanced ovarian cancer.

Conclusions

Through the use of animation, video and still images we present laparoscopic ureteric reconstruction with the formation of a Boari flap.

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