



Laparoscopic approach to ureteropelvic junction obstruction in a bifid pelvis

Lessandro Curcio, Antonio Claudio Ahouagi, Juan Renteria, Igor Rui Araujo, Daniel Presto

Ipanema General Hospital, Rio de Janeiro, Brazil

Objective: About 10% of renal pelvis are bifids and not so there is a larger index of kidney disease over the normal pelvis. The laparoscopy and minimally invasive techniques treat the ureteropelvic junction disease in a low aggressive manner. We showed a video of an atypical pyeloplasty of ureteropelvic junction obstruction of a lower unit. The patient is a 33 year-old woman with an intermittent lumbar pain for 3 years. Your image exams showed a bifid left pelvis with a stenosis of the lower unit. We chose to do the fix of this pathology laparoscopically.

Materials and Methods: We positioned the patient in a right lateral decubitus and 3 trocars was placed, we identify the obstructed junction and a terminolateral anastomosis was performed. Results: The procedure lasted 95 minutes, with little blood loss and the patient was discharged in 2 days. We withdraw the double J catheter after 1 month, a pyelography and a ureteroscopy was performed which showed a pervious anastomosis. After 2 months of follow-up the patient is doing well.

Conclusions: As far as we know, this is the first case of literature with correction by laparoscopy. The stenosis of ureteropelvic junction in the lower unit of a bifid pelvis can be corrected effectively by laparoscopic surgery.

ARTICLE INFO

Available at: www.brazjurol.com.br/videos/may_june_2013/Curcio_438_439video.htm

Int Braz J Urol. 2013; 39 (Video #7): 438-39

Submitted for publication:
March 11, 2013

Accepted after revision:
May 17, 2013

Correspondence address:
Dr. Lessandro Curcio Gonçalves
Av das Américas 13554- bl 02 / 805
Recreio dos Bandeirantes
Rio de Janeiro, RJ, 22790-702, Brazil
E-mail: lessandrocg@ig.com.br

EDITORIAL COMMENT

The video by Curcio et al. depicts a minimally invasive laparoscopic technique which may be utilized in patients with a bifid renal pelvis and obstruction.

Obstruction of the lower segment in a duplex kidney is not common (1).

Side-to-side or end-to-side pyeloureterotomy has been the usual open surgical solution, with the upper segment ureter lying close to the lower

segment pelvis serving as an alternative route of urinary drainage of the obstructed lower pole.

Minimally invasive approaches have evolved over the last several decades. Smith and Badlani first reported use of percutaneous endopyelotomy in these cases in 1985 (2). Fifteen years later Bruno et al. reported retrograde ureteroscopic holmium laser incision of the stenotic UPJ segment (3). As technology and surgeon experience improved, these types of delicate renal pelvic reconstructions that replicate traditional open surgeries have become possible (4).

REFERENCES

1. Amar AD: Congenital hydronephrosis of lower segment in duplex kidney. *Urology*. 1976; 7: 480-5.
2. Smith AD, Badlani G: Percutaneous endopyelopyelotomy: endourological management of a bifid pelvis with ureteropelvic junction obstruction. *J Urol*. 1985; 134: 327-9.
3. Bruno D, Delvecchio FC, Preminger GM: Successful management of lower-pole moiety ureteropelvic junction obstruction in a partially duplicated collecting system using minimally invasive retrograde endoscopic techniques. *J Endourol*. 2000; 14: 727-30.
4. Nayyar R, Gupta NP, Hemal AK: Robotic management of complicated ureteropelvic junction obstruction. *World J Urol*. 2010; 28: 599-602.

Dr. Hubert Swana
Pediatric Urology
Nemours Children's Hospital Orlando
Orlando, FL, USA
E-mail: hswana@nemours.org