

SVII8: LAPAROSCOPIC REPAIR OF A IATROGENIC URETERAL PERFORATION

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Background Ureteral perforation is a rare yet severe complication of the use of Dormia baskets to retrieve ureteral stones. Its management is unclear and include stenting of the ureter or direct repair by laparotomy. We report a case that we could repair primarily by laparoscopy.

Materials and methods We present the case of a 11 years old boy who sought medical attention for renal colic symptoms, with left ureterohydronephrosis and two 3 and 4 mm stones in the distal ureter on ultrasonography. There were no signs of complications so the patient received a conservative treatment with symptomatic improvement. Four weeks later, recurrent painful crisis and an increased dilation of the renal pelvis appeared. We decided to take out the 2 distal ureteral stones using a Dormia basket, with the plan to insert a JJ stent if impossible. If the most distal stone was easily retrieved, the second one could not be caught. An attempt at passing a guide wire toward the renal pelvis failed. Thus, a retrograde pyelography was performed and confirmed a contrast product extravasation. Because no stent could be advanced, immediate repair was decided.

Results By using a transperitoneal laparoscopic approach assisted by cystoscopy, we identified the perforation site, retrieved the residual stone impacted within a very inflamed ureter and performed a circular end to end complete ureteral anastomosis protected by a double J stent inserted by cystoscopy under direct visualization.

The patient was discharged on the second postoperative day. The stent was removed at 6 weeks, and the follow-up shows complete recovery.

Conclusions Unremitting nephritic colic's are uncommon in children, but require active treatment. Stone retrieval using a Dormia basket is a time honoured method, but complications are not rare and include stripping and perforation of the ureter. Most can be treated conservatively if a stent can be inserted, with secondary lithotripsy.

If not possible, immediate repair is indicated upon diagnosis. Rapid diagnosis and repair appears to be the key to effective management of iatrogenic ureteric perforation.

In our case, a complete anastomosis was required, due to the chronic inflammation of the ureter around an impacted stone. Laparoscopy is an elegant alternative to laparotomy. It allows the management of this complication in a minimally invasive fashion.

Key words ureteral stones, ureteral perforation, ureteral anastomosis