RESULTS

The calculus is succesfully disintegrated and the bigger parts are removed. An ureteral stent is placed to facilitate the evacuation of small stone-parts. No complications occurred. The short and small size shaft makes is easier to handle and navigate through the ureter in children, which reduces the risk of ureteral damage.

CONCLUSIONS

We demonstrate the use and possibilities of this new instrument specially designed for applications in children.

V-16 (V)

BILATERAL LAPAROSCOPIC HEMINEPHRECTOMY IN A CHILD WITH BILATERAL ECTOPIC URETER: THE CASE FOR MINIMAL INVASIVE SURGERY

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PURPOSE

The laparoscopic approach is regarded today as an excellent option for renal ablative and reconstructive surgery in adults and older children. In case of bilateral renal surgery it has potential advantages over open surgery in terms of morbidity, use of analgesics and recovery. We present a video of a child with bilateral ectopic ureter treated by simultaneous bilateral laparoscopic heminephrectomy.

MATERIAL AND METHODS

We present a case of a 6 year old female patient with bilateral complete renal duplicity and upper pole hydronephrosis, presenting with insensitive urinary loss with preserved micturitions and breakthrough UTI. The patient was positioned in oblique dorsal 45 degrees decubitus and a transperitoneal approach with 4 ports was made (2 of 12mm and 2 of 5mm). The dilated ureter was identified at the distal third and cranially dissected up to the upper renal pole and ressected with selective clamping of arterial branch. After decubitus change the same procedure was performed for the other side. The distal ureter stumpf was left open after urin aspiration.

RESULTS

The surgery took 480 minutes, with approximately 220 minutes for each side and 40 minutes for repositioning the patient. The clinical evolution was uneventful, the patient was dismissed on the 4th postoperative day totally dry.

CONCLUSIONS

We believe that transperitoneal laparoscopic approach is the option of choice for bilateral heminephrectomy also in children.

V-17 (V)

USE OF RETROPERITONEOSCOPIC INTRACORPOREAL LITHOTRIPTER IN THE TREATMENT OF NEPHROLITHIASIS IN CHILDREN

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PURPOSE

The objective is to assess the efficacy of intracorporeal lithotripsy (StoneBreaker) by retroperitoneoscopical approach for treating pediatric struvita stones in the renal pelvis.

MATERIAL AND METHODS

We have treated two patients with unilateral pelvic struvita calculi using the StoneBreaker, a novel device, portable contact pneumatic intracorporeal lithotripter. The age at surgery was 2 and 4 years old. The patients presented with abdominal pain, nausea and vomiting and recurrent urinary tract infection due to Proteus and Pseudomona spp. Diagnosis was made by plain radiographs and renal ultrasonography. The calculi were located in renal pelvis and inferior caliceal group, with associated mild hydronephrosis. Retroperitoneoscopy was the minimally invasive method perfomed to access to the pelvic stone. Stone clearance was documented on a radiograph taken the day after the surgery.

RESULTS

2 patients had retroperitoneoscopy approach by 3 ports. The size of the stones was 3 and 4,2 cm, respectively. Surgical technique is described. Lithotripsy was continued until stone fragmentation was sufficient to permit safe and easy removal of all fragments. Any evidencce of urothelial trauma was noted. The number of shocks required for successful clearance was 25 y 38, respectively. The renal pelvis was closed and a Penrose drain was left in the retroperitoneum. In the 2 patients a double-J stent was maintained postoperatively. The hospital stay was 3 days. Both patients (100%) became stone free.

CONCLUSIONS

The StoneBreaker appears to be an effective portable intracorporeal lithotripter that should plays an important role among endourological options for lithotripsy in children. Retroperitoneoscopy is an effective, minimally invasive, low-morbidity alternative to open nephrolitotomy for treatment of pelvicaliceal complex stones in the pediatric age.