Abstract

Objectives: With the increased use of minimally invasive surgery, the urethral diverticulum after anorectal surgery has become an issue. The few cases reported have been managed by surgical excision. We hereby report a case of urethral diverticulum after a laparoscopically-assisted anorectal pull-through (LAARP) procedure with a successful outcome after a period of active surveillance. Methods: A full-term boy who displayed a high ano-rectal malformation (ARM) and a recto-prostatic fistula underwent colostomy on the first day. He also showed associated malformations: bilateral low-grade reflux, horseshoe kidney and thoracic hemivertebrae; however, there were no signs of spinal cord tethering. Antimicrobial prophylaxis was started. Results: At the age of 3 months, he underwent a LAARP with a 3 abdominal-port approach. After complete dissection of the distal bowel, the recto-prostatic fistula was identified and tied with metallic clips. A 10 mm trocar was inserted through the centre of the sphincteric complex, which had been previously identified under laparoscopic view during perineal electrical stimulation. The anorectal pull-through was accomplished without tension. The bladder remained stented for 14 days. On the 18th postoperative day, a voiding cystourethrogram (VCUG) showed a 15 X 5 mm image of the diverticulum at the level of the membranous urethra. After 6 months, a new VCUG showed a normal urethra with neither signs of the diverticulum nor strictures; persistence of grade 2 reflux on the right side and resolution of the reflux on the left. When the boy was one year old his colostomy was closed uneventfully. Six months later he had not come into the emergency since the operation and voided with a normal flow. Conclusion: This report suggests that LAARP is a feasible approach for ARM, although urethral diverticulum is a major concern. It may evolve without complications, and eventually resolve spontaneously. Active surveillance might be an option in selected asymptomatic patients; however a longer follow-up is advised to constitute better evidence supporting that policy.

Keywords

Laparoscopy, Paediatrics, Anorectal malformations, Complications, Urethra, Diverticulum