Case Report

Brazilian Journal of Urology
Official Journal of the Brazilian Society of Urology

Vol. 28 (3): 230-231, May- June, 2002

APPENDICITIS OBSTRUCTING A URETERAL SYSTEM WITH INCOMPLETE DUPLICATION

LUCIANO A. FAVORITO, CARLOS H. S. MANNES, ANDRÉ G. CAVALCANTE

Section of Urology, Souza Aguiar Municipal Hospital, Rio de Janeiro, RJ, Brazil

ABSTRACT

Ureteral obstruction is a well-known complication of appendicitis. There are reports on unilateral and bilateral ureteral obstructions; nevertheless, there is no report on appendicitis leading to obstruction in a duplicated ureteral system. We describe a case of ureteral obstruction in a ureteral system with an incomplete Y-duplication.

A 36-year-old white woman presented with lower abdominal pain associated with fever and vomiting for one week. The urinalysis showed microscopic hematuria and pyuria. Complete blood count revealed signs of infection. The first diagnosis was pyelonephritis, and the patient was placed in antibiotic therapy with good response. The patient was submitted to an intravenous pyelography that showed an incomplete ureteral duplication at the right side, dilation of the medial ureter, and lower pole hydronephrosis. A retrograde pyelography was performed to confirm the incomplete Y-duplication. The abdominal computed tomography showed an heterogeneous mass at the right lower quadrant. Laparotomy was performed and it was possible to identify an appendicitis leading to a compression of one of the ureters of the double system. The patient was submitted to appendicectomy and presented uneventful evolution.

Key words: ureter; abnormalities; appendix; obstruction; appendicitis; duplication
Braz J Urol, 28: 230-231, 2002

INTRODUCTION

Ureteral obstruction is a well-known complication of appendicitis. There are reports on unilateral (1) and bilateral (2) ureteral obstructions; however, we have not found any report on duplicated ureteral system obstruction due to appendicitis in the literature. The objective of this study is to report a case of obstruction in a ureteral system with Y-duplication as consequence of an appendicitis.

CASE REPORT

A 36-year-old white woman was accepted in the emergency room complaining of abdominal pain on the right flank associated with fever and vomiting. Symptoms had initiated 7 days before. During examination, the abdomen was painful without signs of peritoneal irritation. The urinanalysis revealed hematuria and pyuria. The blood test showed signs of infection. The initial diagnosis was pyelonephritis, which was treated with antibiotics with good results. The patient was submitted to an intravenous urography which revealed incomplete ureteral duplication on the right, with medium ureter dilation and hydronephrosis on the lower pole of the right kidney (Figure). The retrograde pyelography confirmed the incomplete ureteral Y-duplication. Computed tomography showed an heterogeneous mass at the right lower quadrant of the abdomen. The patient was sub-

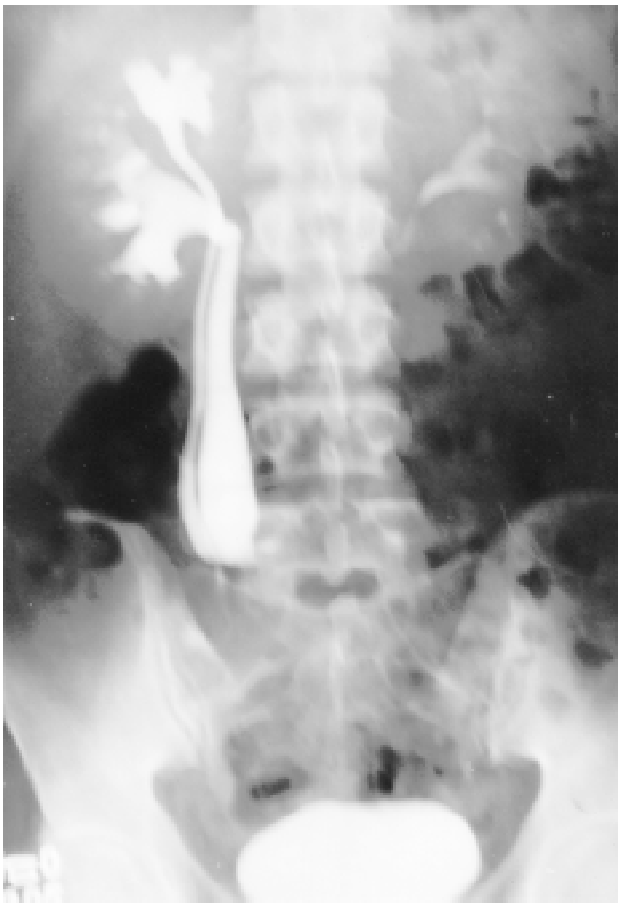

Figure *- Intravenous pyelography showing an incomplete Y-duplication with obstruction of the midureter and hydronephrosis of the right kidney lower pole.*

mitted to exploratory laparotomy and an appendicitis compressing one of the double system ureters was observed. After apendicectomy, the patient presented an uneventful outcome. Improvement of the hydronephrosis was observed by a new intravenous urography performed 60 days after the surgery.

DISCUSSION

The most common urinary tract abnormality caused by appendicitis is the alteration in the urinary sediment (3). It is easy to understand the right ureter obstruction caused by an extrinsic compression due to an appendicular abscess (1). However, bilateral ureteral obstrucion in cases of appendicitis does not present a well-known mechanism (2).

The ureteral duplication is a frequent congenital anomaly. Among the ureter duplication anomalies, one of the most common is the incomplete Y-duplication. In our patient, the urinary sediment alteration made the diagnosis difficult do be determined. The patient presented ureteral obstruction with pain and hydronephrosis. The appendicitis led to a compression of the incomplete Y-duplication midureteral system.

Acute appendicitis must be considered in cases of ureteral obstruction of complete and partial duplication systems, acompanied by urinary sediment alteration.

REFERENCES

1. Cook GT: Appendiceal abscess causing urinary obstruction. J Urol, 101: 212-215, 1969.
2. Green JT, Phan HT, Hollowell CP, Krongrad A: Bilateral ureteral obstruction after asymptomatic appendicitis. J Urol, 157: 2251, 1997.
3. Jones WG, Barie PS: Urological manifestations of acute appendicitis. J Urol, 139: 1325-1328, 1988.

Received: January 14, 2002
Accepted after revision: May 16, 2002

Correspondence address:
Dr. Luciano Alves Favorito
Rua Professor Gabizo 104 / 201
Rio de Janeiro, RJ, 20271-320, Brazil
Fax: + + (55) (21) 3872-8802