In this gentleman, bladder rupture led urine to leak into the peritoneal cavity causing lower abdominal symptoms and a rise in urea and creatinine due to reabsorption through the peritoneum. These resolved following catherisation as urine was diverted away from the peritoneal cavity. Cystography is necessary to confirm diagnosis and when diagnosed surgical repair should be undertaken. Repair should usually be reinforced because of the poor wound healing of irradiated tissues.5

Conflicting Interests - None declared.

References


Intraluminal endometriosis as a cause of hypertension

B.J. Challacombe, I. Halim, J. Glass and R.J. Popert
Department of Urology, Guy’s Hospital, St Thomas’ Street, London SE1 9RT. United Kingdom.
Correspondence to: Mr Ben Challacombe, Research Fellow Urology, Department of Urology, Guy’s Hospital, St Thomas’ Street, London SE1 9RT. United Kingdom.

Abstract

We present an unusual case of intraluminal endometriosis causing ureteric obstruction and secondary hypertension. Diagnosis was made via ureteroscopy and biopsy. The hypertension resolved following nephro-ureterectomy.

Case History

A 29-year old French woman initially presented to her general practitioner with early hypertension discovered following a routine blood pressure check prior to an oral contraceptive prescription. An abdominal ultrasound, performed as part of the standard investigations for early hypertension, showed an enlarged right kidney. A subsequent intra-venous urogram and DMSA renogram, revealed this kidney to be non-functioning and grossly hydrenephrotic. A contrast CT confirmed marked dilatation of the right kidney and ureter, but showed no obvious source of extrinsic compression. She had previously had a laparoscopy and oophrectomy for endometriosis.

At flexible ureteroscopy a tight stricture was seen within the right distal ureter, through which neither the flexible ureteroscope nor a guide wire would pass (figure):

![Figure. Lesion in distal right ureter at flexible ureteroscopy](image)

This was confirmed by intraoperative retrograde studies. A biopsy of this lesion confirmed intraluminal endometriosis. This patient was treated with an open right nephro-ureterectomy and made an uncomplicated recovery. Histological examination confirmed intraluminal endometriosis of the distal ureter with a clear margin. Her blood pressure returned to normal limits within 24 hours of the surgery.

Discussion

Endometriosis is a common disease with millions of women diagnosed worldwide.1 Up to 10% of pre-menopausal women are sufferers and it is the leading cause of pelvic pain2. Although it commonly affects the urinary tract, ureteric involvement is seen in only 0.1-0.4% of cases1. Most of these cases involving the ureter(s) are extrinsic, with only a tiny sub-group causing intra-luminal obstruction3. Although not a common site for endometriosis, intraluminal spread to the ureter should be considered as a cause of ureteric obstruction and its presence confirmed with ureteroscopy prior to definitive surgery.

Unilateral urinary obstruction has been known to be a reversible cause of hypertension for over sixty years4. The incidence of hypertension in patients with acute unilateral ureteric obstruction has been reported to be 20% to 30%, whereas the incidence in chronic urinary obstruction is significantly lower. The mechanism is thought to initially involve excessive renin secretion and the hypertension is then sustained by more complex volume-vasoconstriction abnormalities5. Thus patients with lateralised renin secretion detected by renal vein sampling who also respond well to angiotensin converting enzyme (ACE) inhibitors, are likely to be rendered normotensive following surgical correction of their unilateral hydronephrosis.

It is documented that hypertension secondary to urinary obstruction in pregnancy also resolves after treatment of the obstruction6,7,8 as does hypertension related lower urinary tract obstruction such as severe phimosis9. It is now recommended that when nephrectomy is indicated for benign pathology, it should be performed via the laparoscopic approach as this provides a minimally invasive technique for identifying the kidney and subsequently minimises post-operative morbidity including hospital stay, post-operative analgesia and return to work10.

Conflicting Interests - None Declared.

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References


