

Spontaneous Rupture of the Bladder Due to Haemangioendothelioma: A Case Report

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ABSTRACT

Spontaneous rupture of the bladder is uncommon. A 55-year-old man presented with spontaneous rupture of the bladder from a vessical haemangioendothelioma. Treatment was by wide excision. The patient was well at 3 years of follow up. The diagnosis and biologic behaviour of this uncommon tumour is discussed.

KEY WORDS: Bladder, Spontaneous Rupture, Haemangioendothelioma

Introduction

Rupture of the healthy bladder requires severe external force or instrumental trauma.¹ Spontaneous rupture of the bladder is uncommon and is usually associated with intrinsic vesical pathology.²

Case report

A 55-year-old man presented with sudden onset of abdominal pain which was initially located in the

epigastrium but became generalised after 12 hours, associated with fever and irritability. The patient had not passed urine in the 12 hours before presentation and had no urge to void. There was no previous history of urethral discharge or trauma. He had occasional painless haematuria. There was no history suggestive of diabetes mellitus and he was not hypertensive.

Physical examination showed a temperature of 38.1°C, dehydration and no pallor. The

Pulse rate was 90/minute and blood pressure 90/70 mmHg. The abdomen was distended and moved only minimally with respiration. There was generalised tenderness, maximal in the right iliac fossa. Rectal examination showed fullness in the rectovesical pouch and tenderness in the pararectal areas.

Dehydration was corrected and the stomach kept empty by nasogastric suction and drainage. A foley's urethral catheter was passed and drained only 100mls of concentrated, slightly bloodstained urine. Serum urea was 22 mmol/L but the electrolytes were normal. Haematocrit was 41%. Plain abdominal radiograph showed dilated small bowel loops but no pneumoperitoneum.

At laparotomy, the findings were: bloody peritoneal fluid, generalised fibrinoid adhesions, rupture of the dome of the bladder (6cm) in the sagittal plane. The edges of the defect were friable, necrotic but no active bleeding. The bladder mucosa was smooth, not thickened but felt indurated around the edges of the rupture. The internal urethral meatus and ureteric orifices were normal. Other intraabdominal organs were normal. The ruptured bladder edge was excised until free bleeding, healthy bladder wall. The bladder was repaired in layers and the peritoneal cavity cleaned. Histology of the excised

bladder wall showed features consistent with intermediate grade haemangioendothelioma (figure 1).

Figure 1: Intermediate Grade Haemangioendothelioma



Postoperative course was uneventful and the patient was discharged home after 10 days. Check cystoscopy at 6 months and one year were normal. The patient has remained well at 3 years of follow up.

Discussion

Spontaneous rupture of the bladder refers to rupture of a previously diseased bladder, usually in the absence of or in association with minimal violence. ¹ It may occur rarely, in a healthy bladder. ² Associated vesical

disorders reported in association with spontaneous bladder rupture include, previous radiotherapy, invasive carcinoma of the bladder, infections and infestations, and vesical candidiasis.

Haemangioendothelioma is a rare vascular tumour of the bladder.

The patient with spontaneous rupture of the bladder usually presents with a sudden onset of life threatening acute abdominal catastrophe, which may pose a diagnostic problem. Preoperative diagnosis is unlikely and rupture is often discovered at exploratory laparotomy. The serum urea is usually elevated due to rapid absorption of urine from the peritoneum. In a suitable patient, a retrograde cystogram may reveal intraperitoneal extravasation of contrast material.

Haemangioendothelioma is a distinctive epithelioid endothelial cell, vascular tumour arising from a vessel and characterised by a distinctive epithelioid endothelial cell, having a histiocyte or epithelial like appearance.^{5, 6} It is uncommon and only sporadic cases have been reported in the lungs, liver and recently, spinal column, skin, bone, heart, spleen and lymph nodes.⁶ It occurs in adults and lacks well formed vascular channels. It is distinguished from haemangiomas and angiosarcoma by its low predilection for skin. The bladder is an uncommon site of presentation, and the behaviour at this site has not

been well studied. Haemangioendothelioma has a reasonably good prognosis, and patients have lived for up to 12 years.⁶ Recommended treatment is initial total excision with a wide margin. The role of adjuvant radiotherapy or chemotherapy has not been sufficiently studied due to lack of data.⁵ The tumour is thought to have a low rate of metastasis and long-term follow up is desired even if initial histologic appearance is benign.

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