Urinary Bladder Rupture In An Elderly Man From Abdominal Massage

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ABSTRACT

Background: ***Bladder rupture is a serious urological injury. Because symptoms are often atypical among elderly patients, this condition is often undetected especially when there is little or no trauma.***

Aims and Objective: ***We report a rare case of bladder rupture, secondary to abdominal massage.***

Patient and Method: ***A case of a 78 year old man who presented with 4 day history of abdominal pain following therapeutic traditional abdominal massage.***

Results: ***Following an exploratory laparotomy and repair of an 8cm intraperitonial bladder dome rupture, the patient had an uneventful recovery and was discharged.***

Conclusion: ***A high index of suspicion, prompt diagnosis and immediate exploration will decrease the mortality and morbidity associated with this condition. There should be increased awareness on the inherent risk associated with traditional abdominal massage.***

Keywords: ***Urinary bladder, rupture , abdominal massage.***

INTRODUCTION

Spontaneous urinary bladder rupture or bladder rupture following trivial trauma often goes unrecognized despite symptoms of abdominal pain, difficulty or inability to void, and rigidity of the abdominal wall.[1-3] Given the atypical presentation of the disease, so frequently seen in the elderly, it is not surprising that diagnosis is often delayed [4]. We present a case of unsuspected bladder rupture in an elderly man following therapeutic traditional abdominal massage.

CASE REPORT

A 78 year-old retired carpenter presented with difficulty in passing urine of 3 weeks duration and generalized abdominal pain of 4 days duration. The difficulty was characterized by lower urinary tract symptoms. The abdominal pain was initially located in the suprapubic area but later became generalized with associated vomiting, constipation, progressive generalized abdominal distension, fever and inability to pass urine. There was no history of purulent urethritis, haematuria, contact with anybody with chronic cough, weight loss and low back pain. There was no history of major trauma prior to onset of abdominal pain, but he admitted receiving therapeutic traditional abdominal massage from a native doctor.

Following the onset of symptoms, he visited a peripheral hospital where he received one unit of blood and other medications to no avail. He then sought help from a native doctor who gave herbal concoction and did abdominal massage. His abdominal pain rather worsened. He is not a known hypertensive or diabetic.

On examination, he was elderly, anicteric, apyrexial, pale and dehydrated. Pulse rate was 112/min regular and moderate volume, blood pressure was 160/110mmHg and respiratory rate was 28cycles/min. Chest was clinically clear. Abdomen was grossly distended and moved minimally with respiration. There was generalized tenderness, rebound tenderness and ascitis, and bowel sound was absent.

Digital rectal examination showed moderately enlarged prostate with benign features. Abdominal paracentesis yielded 4 ml of non-clothing blood.

The diagnosis was Haemoperitoneum of unknown origin with suspected rupture of a viscus and Bladder outlet obstruction, secondary to benign prostatic hyperplasia. The plan was to optimize him for exploratory laparotomy. He was rehydrated, an NG tube was passed, and an urethral catheter was passed which drained bloody urine. Serum electrolyte was normal, creatinine was elevated 130umol/L (76-127) and urea was 6.4mmol/L (2.5-6.6). Urgent PCV was 31%. Plain abdominal x-ray showed dilated loops of bowel but no pneumoperitoneum. Total PSA was 16.7ng/ml, percentage free PSA was 7.8%. An ultrasound done 1 week prior to presentation showed that the patient was in retention.

Exploratory laparotomy findings were haemoperitoneum, 8cm longitudinal tear on the dome of the bladder (see figure 1). Bladder edge was biopsied and the tear was closed in two layers. Histology report was in keeping with reaction following traumatic tear. The post operative period was uneventful and patient was discharged on the 14th post operative day with urethral catheter. Prostatectomy was planned for a later date.

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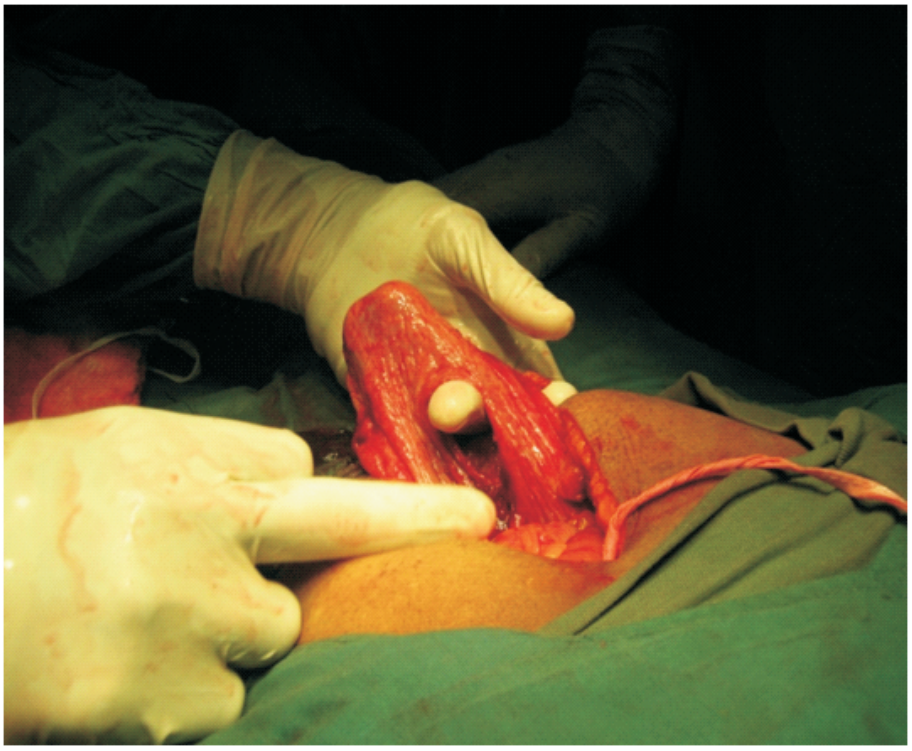

Figure 1: Intra-operative picture of patient showing the rupture in the bladder

DISCUSSION

Spontaneous bladder rupture or rupture from trivial trauma has been variously reported to have arisen from bladder outlet obstruction, vaginal delivery with a full bladder, ruptured uterus, pushing of heavy objects with a full bladder, alcohol intoxication, direct cancer spread and stroke[1,5,6]. In other cases, pelvic irradiation, inflammation of the bladder from interstitial cystitis or eosinophilic cystitis or tuberculosis, enterocystoplasty, erosion of an indwelling catheter or a large vesical calculus have been implicated[7]. There were only two cases of bladder rupture from abdominal massage in our literature search[2]. These were in the immediate postpartum period following normal vaginal delivery. The patients went for traditional abdominal massage as is the practice in Malaysia. The postulation is that they probably had some degree of retention following delivery. Our own patient had chronic urinary retention from benign prostatic hyperplasia for which he went for a traditional abdominal massage. This probably was believed would provide a cure or palliation for the likely associated lower abdominal mass from bladder distension.

Presentation of bladder rupture varies widely depending on aetiology, age of patient and type of rupture. With an identifiable trauma, the history is often suggestive, but when there is no identifiable trauma as in our patient diagnosis is often made in theatre following exploratory laparotomy [2,3,6]

The mainstays in diagnosis are retrograde cystography, surgical exploration, and analysis of ascitic fluid for urea, creatinine and electrolytes[2]. The sensitivity and specificity of cystography is 78% and 99% respectively[8]. But because bladder rupture is often not suspected, this investigation is not done.

A history of anuria or oliguria, haematuria, sudden onset abdominal pain, no matter how mild, should raise the suspicion of bladder rupture irrespective of the degree of trauma [1,3 ,6 ·] Our patient presented with most of these features but was still not suspected to have bladder rupture because of the absence of clear cut trauma.

Treatment is usually by open bladder repair after optimizing the patient since diagnosis is usually not clear until after exploratory laparotomy[2,3,6]. Laparoscopy and laparoscopic cystorhaphy have also been done.[1]

The prognosis generally depends on the time of presentation. Peritonitis due to spontaneous rupture is associated with a mortality rate of 80% in undiagnosed cases;[9] mortality during the first 12 hours is 10%, after 24 hours 25% and thereafter 50%.[9,10]. Our patient surprisingly made an uneventful recovery in spite of presenting 4 days after rupture. This is possibly

because the serum electrolyte and urea were normal with only a marginal derangement in creatinine level. This may be the determining factor and not necessarily the duration of stay from the time of injury before intervention.

CONCLUSION

This case is to reemphasize and reawaken the need for a high index of suspicion for bladder rupture in a patient with sudden onset abdominal pain, anuria/oliguria, haematuria and ascitis irrespective of presence or absence of a history of trauma. There should be increased awareness on the inherent risk of application of traditional abdominal massage.

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