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Urology

SPONTANEOUS BLADDER RUPTURE IN A CASE OF CARCINOMA BLADDER – A CASE REPORT

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ABSTRACT Spontaneous rupture of urinary bladder is a rare condition. Most often, a vague lower abdominal pain is the most common clinical presentation. Rarely patients present with anuria , oliguria, uremia or urosepsis. We are reporting a case of spontaneous bladder rupture associated with massive haemorrhage and shock which was managed by open surgical repair after stabilization of the patient .A 82 year old male, known case of carcinoma bladder presented in the emergency with shock . He had history of gross hematuria with passage of clots for last 1 week . On CT , there was a posterosuperior rupture of bladder , for which he underwent exploratory laparotomy and repair of the rent .This case report illustrates the need for a high index of clinical suspicion. Prompt diagnosis and appropriate management will help in preventing a poor clinical outcome in patients with spontaneous bladder perforation. If left untreated or if there is a considerable delay in diagnosis and intervention, it usually is associated with a high morbidity and mortality. Also , spontaneous bladder rupture in a case of Ca bladder which has been treated with bladder preservation therapy and under regular follow up has not been reported yet .

KEYWORDS :

INTRODUCTION

Spontaneous Bladder rupture is an extremely rare but a fatal entity which needs to be diagnosed and managed early to prevent mortality . The most common cause is blunt traumas to the abdomen . Other less common causes are chronic cystitis , diverticulitis , pelvic radiation , urinary retention .Bladder rupture presenting as an acute abdomen is sometimes misdiagnosed sometimes even with the help of CT imaging .

Here ,we are reporting a case of a spontaneous bladder rupture in a case of bladder cancer .

CASE PRESENTATION

A 82 YEAR old male presented in the emergency department with hypovolemic shock due to gross hematuria . He had history of hematuria with passage of clots for last 7 days . He was a case of Ca bladder (G3 T1 post TURBT) on bladder preserving protocol and had taken RT & Chemotherapy was under check cystoscopy for 2 years, last cystoscopy was 6 months ago which was normal .

On examination , his pulse was 110 / m and there was severe pallor , respiratory rate 32/min and BP of 80/40 .His abdomen showed tenderness in lower abdomen .He was resuscitated with IV fluids and blood work up was done . His lab showed haemoglobin of 5.7 leucocyte OF 12,700 ,creatinine of 1.7 .He was catheterized , which showed gross hematuria with clots . A CT Abdomen pelvis (with follow up scan with contrast through the catheter) was done (image 1,2,3) , which showed a posterosuperior bladder wall defect and leakage of contrast in the peritoneal cavity along with pneumoperitoneum and mild to moderate ascites . It also revealed an irregular bladder wall thickening posteriorly . There were multiple blood clots in the bladder as well (image 4) .

With the probable diagnosis of intraperitoneal bladder rupture leading to acute peritonitis and sepsis after stabilizing of patient for 4 hours and transfusing him with 3 PCV , we explored the patient . It revealed a rent in the post superior wall of bladder of size approx. 2x2 cm with 350 cc of organized clots in the bladder . There also was around 2 litres of intra peritoneal blood which was drained and lavage was given (image 5) . The bladder was closed water tight in 2 layers after removal of the clots .intraoperatively 2 pcv was also given

Intra op there was thickness seen in posterior wall of bladder and the egdes of the rent through which biopsy's was taken which came out as inflammatory changes . Following the repair of bladder we did check cystoscopy and after 6 months it was normal .

Patient needed icu care for initial 3 days after which he was shifted to regular wards.

The recovery was uneventful and the patient was discharged on post op day 7 .

DISCUSSION

SRUB is a rare condition. Bastable JR et al. have reported an overall incidence of 1:126000 (1). Most of them occur in males (79%) (2). Alcohol abuse resulting in a bladder rupture has been reported in a very few cases (3). SRUB has been reported not only with alcohol consumption but also with other substance abuse like cocaine and amphetamines (4). It is also known to occur in malignancies of the urinary bladder, neurogenic bladder or post irradiation bladders. Jenkinson et al. proposed a classification of spontaneous bladder rupture, wherein he had classified them as due to Idiopathic, drug induced, obstructive and due to bladder wall lesions (5).

Spontaneous rupture of the urinary bladder is a rare occurrence; in the available literature it is predominantly associated with risk factors such as radiotherapy for pelvic malignancies (6). According to a recent article by Baxter et al., women who undergo radiation therapy to the pelvis for cancers of the cervix, rectum, or anus are at an increased risk for pelvic fractures.(7) Budd et al. in 1988 reported his case of spontaneous bladder rupture in a female with transitional cell carcinoma of the bladder (8). Glashan et al. attributes the male predominance to the anatomical features of the male urethra that makes the male bladders more liable to distension and a consequent rupture (9). Jamil Ahmed et al. in his review of literature of spontaneous bladder rupture identified that only 2 of the 15 cases reported had an accurate pre operative diagnosis, while the rest were initially managed conservatively with catheterization and antibiotics (10).

The mortality rate of spontaneous bladder rupture due to carcinoma bladder is high , around 47% (3), so we should explore the patient early if we have the diagnosis strongly suggestive .

In our patient as soon as we had the CT report , we explored him and repaired the rent as early as possible after stabilization. Also in our patient the possibility of radical cystectomy was surely out of question because of the hemodynamic instability and the patient would have not survived the surgery . The possibility of ca bladder reccurence was always there and we believed that if it is ca bladder then rupture of it has already made it a T4 disease where doing Radical cystectomy would not cure him . The procedure was done as a life saving resort at

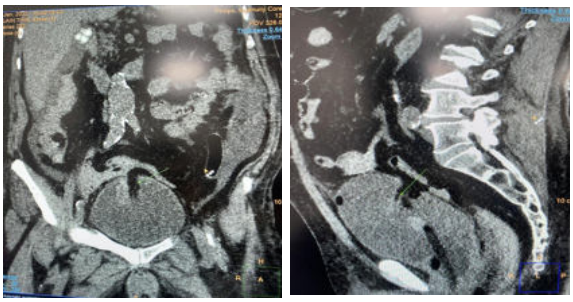
the same time biopsies were taken whixch didn't reveal any active disease after reporting .

The bewildering thing in our case was that the biopsy came out inflammatory changes and the only possitive finding was the history of radiation 2.6 years ago .The significance of reporting this case was that even normal bladders can rupture in the absence of any active pathalogy or strictures, .

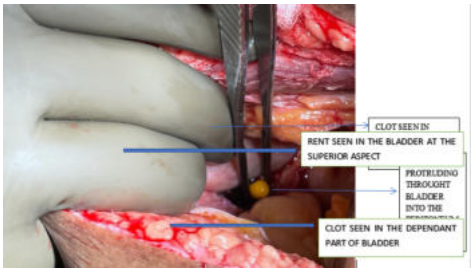
CONCLUSION

Early intervention is the key for management of Spontaneous bladder rupture ,which can prevent patient mortality . That's why we need to keep the differential diagnosis of spontaneous bladder rupture in cases of acute abdomen ,especially in those cases who have any pre existing bladder pathology like carcinoma or chronic cystitis or bladder diverticulum. Also bladder rupture is possible in cases where there is no pre existing bladder pathology like in our case which was a tretaed casse of carcinoma bladder.

FIGURE



CLOT SEEN IN BLADDER AFTER OPENING →IMAGE 3



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