A 85 y/o Woman,ESRD,With Consciousness Disturbance

R1 陳穎玲
指導Vs:吳柏衡
2013/04/09

VISIT ER AT 17:39

- 主述:意識程度改變,洗腎一半血壓掉
- Triage I
- TPR 36.5/114/30 BP 99/85 SpO_2 80%
- E3V3M4

Present illness

Shock episode noted during HD
Family:最近尿髒
No fever
No chest pain

Past History

ESRD,on HD
DM
CAD
Right BKA

PE

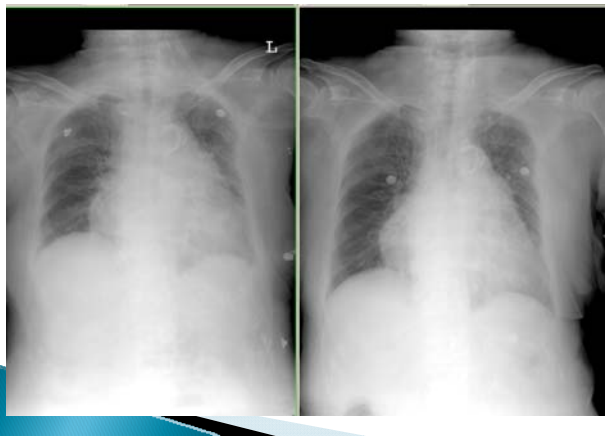
- Conscious drowsy,E3V2M5
- Neck:supple
- Clear BS,RHB
- Abd:soft,no guarding
- Limbs:cold/cyanosis,hand
- Right BKA
- Left toe cyanosis,dry gangrene

Impression & Management

Shock,Cause?
r/o septic

- 17:42
  - On monitor
  - O2 Mask 6L/min
  - F/S(97)
  - IV on lock
  - ABG6
  - Lactate
  - CBC.DC.PLT
  - Panel 1/enzyme/CRP/T-B
  - B/C X II
  - U/A,U/C,3 way foley
  - CXR,EKG

25 16



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PH=7.380
PCO2=49.8 mmHg
PO2=31 mmHg
BE=4 mmol/L
HCO3=29.5 mmol/L
TCO2=31 mmol/L
SO2=57 %
NA=140 mmol/L
K=3.0 mmol/L
HCT=30 %PCV
HB=10.2 g/dL
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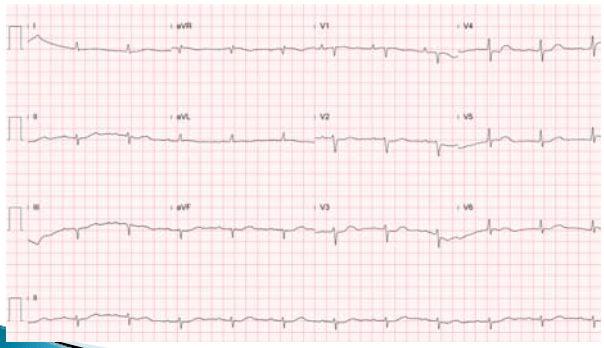
CBC/Platelet/DC	**********	
WBC	18.3	X1000/ul
RBC	3.36	million
Hb	9.8	gm/dl
Ht	30.8	%
MCV	91.7	fl
MCH	29.2	pg
MCHC	31.8	%
RDW	15.5	%
Platelet	186	x1000/ul
GOT(AST)	25	U/L
T-Billirubin	0.7	mg/dL
BUN	20	mg/dL
Creatinine	2.30	mg/dL
eGFR	20.15	
Troponin I	0.192	ug/L
CRP	33.700	mg/dL
Lactate	24.8	mg/dL



Sediment	**********	
RBC	51-100	/HPF
WBC	>100	/HPF
Epithelial cell	3-5	/HPF
Cast	Not Found	/LPF
.cast-amount	-	
Crystal	Not Found	/HPF
.Cry-amount	-	
Bacteria	+++	
Others	Not Found	

所以,診斷是?

Urosepsis?

接下來,打antibiotics轉EC等住院?

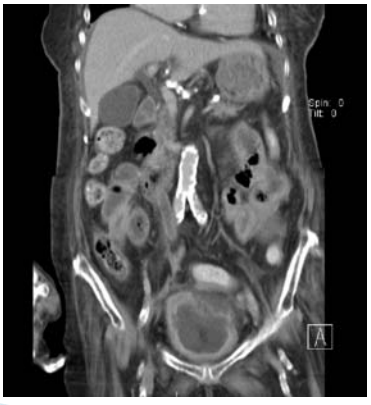
Order

- 家屬說:以前都沒尿,最近20天開始有尿,很臭
- PE: Diffuse tenderness

DDX?

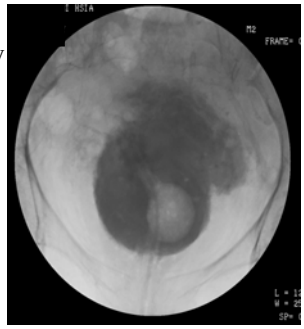
Abd CT

Acute necrotic UB with turbid/purulent urine and bladder rupture from anterior superior aspect resulting urine leak related purulent peritonitis.



Cystography

Cystography shows:
-Leakage of C.M noted in urinary bladder from left superior aspect, C/W bladder rupture.
-Mild irregularity of contour suspected cystitis.



Hospital Course

- Tazocin treatment
  ICU observation
  U/C:Enterococcus species.

Discussion

1.Bladder rupture
Diagnosis & Classification& Treatment
2.Back to our case

Risk Factors

- Blunt trauma to the lower abdomen
- cancer of the pelvic organ
- irradiation therapy of pelvic tumours
- urinary bladder tumour
- large ureterovesical stone
- urethral or suprapubic urinary catheterisation
- in postpartum females(spontaneous or iatrogenic)
- Atonic bladder
- Previous laparotomy
- Iatrogenic rupture secondary to continuous normal saline irrigation
- Binge alcohol intake

Bladder Rupture

- 甚麼時候會想到?

- 臨床上:
- Lower Abdominal Trauma(尤其有pelvic fracture)+Gross Hematuria/Voiding problem
- Non-trauma patient:Fever,嚴重下腹痛,ascites,azotemia,ARF

Back to our case

- Hint:

Diffuse abdominal tenderness(peritonitis?)+shock+urosepsis+turbid urine

Clin Nephrol. 2008 Mar;69(3):221-3.

Spontaneous bladder rupture in a chronic hemodialysis patient.

Chung S, Choi DE, Lim JS, Na KR, Shin YT, Lee KW.

Department of Internal Medicine, Chungnam National University Hospital, Daejeon, South Korea.

Abstract

Spontaneous bladder rupture is very rare. A 67-year-old woman who was nearly anuric and had been on chronic hemodialysis therapy for diabetic end -stage renal disease for 6 years complained of severe low abdominal pain and fever for 2 days. Abdominal computerized tomography and retrograde cystography revealed the extraperitoneal leakage of contrast medium, confirming bladder perforation. Partial cystectomy around the perforation site and repair of the bladder rupture were performed. Microscopic examination of the excised bladder tissue revealed that the bladder mucosa was ulcerated. Severe suppurative inflammation was observed throughout the bladder wall. Antibiotic treatment was continued for 3 weeks postoperatively, and repeated retrograde cystography showed no evidence of contrast extravasation. She was discharged, with no other complications.

PMID: 18397723 [PubMed - indexed for MEDLINE]

Case report

⊕ Publication Types, MeSH Terms

⊕ LinkOut - more resources

Arch Ital Urol Androl. 2012 Dec;84(4):224-6.

Spontaneous rupture of urinary bladder: a case report and review.

Albino G, Bilardi F, Gattulli D, Maggi P, Corvasce A, Marucco EC.

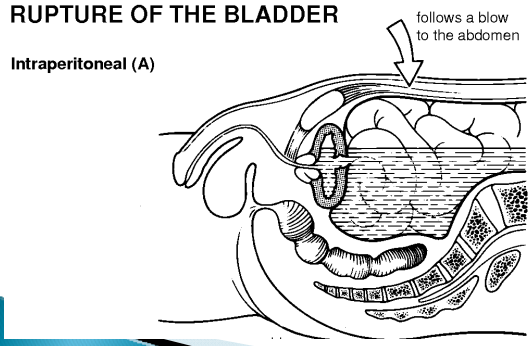
1 U.O. di Urologia, Ospedale L. Bonomo, Andria, ASL BAT, Italy. peppealbino@hotmail.com

Abstract

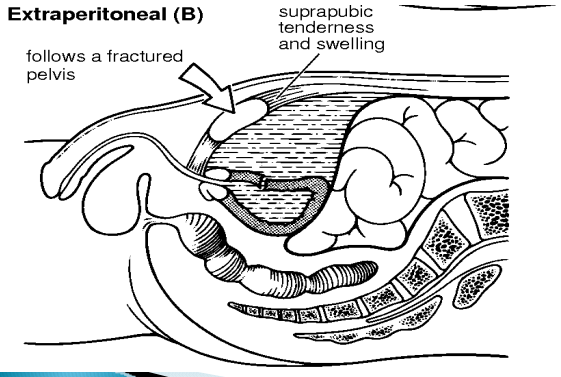
Spontaneous rupture of the bladder is a rare event. The clinical presentation shows the signs and symptoms of peritonitis, but the diagnosis is made at the operating table. This event is burdened with a high mortality rate. We present a case report of a 73-year-old man who came to our observation. He was a chronic carrier of urinary catheter, at least 7 times removed traumatically by himself. At the time of admission he showed drastic reduction in urine output, absence of hydronephrosis, normal functioning of the catheter, a tense and widely meteoric abdomen, the presence of air-fluid levels, normal kidneys, absence of free fluid in the abdomen. The CT showed a fluid collection of about 7 cm diameter between the bladder and rectum. The explorative laparotomy found a small fissuration of the posterior wall of the bladder. For his severe conditions, the patient died a few hours after surgery, in intensive care unit. Although it is a rare event, since 1980, 177 cases of spontaneous rupture of the bladder are reported in the literature. Their causes may be essentially divided into two groups: for increase of intravesical pressure, or for weakening of the bladder wall. In most cases, the spontaneous rupture of the bladder takes place in presence of a urothelial neoplasm or after radiation therapy of the pelvic organs. The etiology of spontaneous rupture of the bladder in our case does not relate to a bladder tumor or radiotherapy. It may have been caused by repeated episodes of acute retention of urine with extreme bladder distension up to 3 liters. It is not easy to think of a bladder perforation in patients presenting signs of peritonitis without a history of bladder cancer or pelvic radiotherapy. A CT with intravesical contrast medium could help the diagnostic orientation.

PMID: 23427749 [PubMed - indexed for MEDLINE]

分類:Intraperitoneal type



分類:Extraperitoneal type



	Intraperitoneal type	Extraperitoneal type
Location of pain	Lower abdominen, diffuse	Suprapubic area
Clinical presentation	Peritonitis	
Mortality &Morbidity	Higher	
Management	Surgical repair	Most:Conservative Treatment

Management:
Intraperitoneal Rupture (LEVEL OF EVIDENCE 3)

- Formal surgical repair is the standard of care
- Catheter drainage alone only applicable to minimal iatrogenic (e.g. resectoscopic) injuries.
- Potential selective applicability of laparoscopic repair techniques for laparoscopic iatrogenic bladder injuries (level of evidence 3) .

BJU:Consensus statement on bladder injuries
Reynaldo G. Gomez1et al. 24 JUN 2004

Management:
Extraperitoneal Rupture (LEVEL OF EVIDENCE 3)

- Most can be managed with catheter drainage alone+Prophylactic antibiotics (3 weeks of catheter drainage)
- Reasons to proceed with surgical repair:
  - Failure of the catheter to provide adequate drainage (clot formation, persistent extravasation).
  - Concomitant vaginal or rectal injury.
  - Bladder neck injury/avulsion injury.
  - Patients undergoing internal fixation of a pelvic fracture require bladder repair to prevent urinary extravasation/infection of orthopaedic hardware.
  - Selected patients undergoing laparotomy for other than urological injuries

BJU:Consensus statement on bladder injuries
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Thank You for your Attention!!!