RARE CASE OF CATASTROPHIC BLADDER RUPTURE

Department of Obstetrics and Gynecology

UNIT-3

CASE PRESENTATION

- 29 year old female P1L1 was referred by the relatives to Dr D.Y. Medical college and Hospital on 21/09/21(PND-11) at 11:33pm on ventilator support from Hospital C with provisional diagnosis of Puerperal septicemia with Encephalopathy

Background

SERIES OF EVENTS

- P1L1 delivered male 3.8 kg by full term Normal vaginal delivery with episiotomy on 11/09/2021 at 1:25am in hospital A.
- Patient was discharged on PND3 from hospital A.

- Patient developed abdominal distension , decreased urine output and altered sensorium on 15/09/2021(PND 5) and was taken to hospital B on 16/09/2021.
- On examination(16/09/21)(PND 6)
- Patient was disoriented
- Pulse- 92bpm, **BP- 150/100 mmHg**.
- Provisional Diagnosis was ? post partum psychosis
- Catheterization was done.
- Injection Midazolam was given
- Referred to higher center (Hospital C) for further management since no Beds were available .

- On examination (Hospital C)
  - **Pulse -142bpm ; BP -150/100 mmHg**
  - SpO2- 94% on room air
  - RS- bilateral **basal crepitations +**
- Patient was intubated on 16/09/2021 (PND 6) due to low general condition
- Patient was referred to our hospital (Hospital D) for further management

Course in our hospital

- She was seen at emergency department and shifted to surgical ICU on 21/09/2021 at 11:33 PM (PND11)
- Patient was already intubated
- **PR: 120 bpm** **P/A: Abdominal distension + Guarding +**
- **BP: 150/90 mmHg** L/E : No active bleeding
- **Spo2: 99%** Foley's in situ with 30 ml urine
- RS- B/l equal air entry, wheeze present
- CVS- S1, S2 heard, no murmur

INVESTIGATIONS AT OUR HOSPITAL

- Hb- 12.1 g/dl
- WBC- **15, 200**/mm
- Plt- 1,73,000/mm
- BSL® -**168 mg**/dl
- S. Urea- 47mg/dl
- S. Creatinine- 2mg/dl
- S. Ammonia- 21 U/ml
- HbA1C- **7%**
- S. Uric acid- 6.2 mg/dl
- Procalcitonin- **10** ng/ml
- S. Sodium- 139 mmol/L
- S. Potassium- 4.6mmol/L

Urine RM

- **U.Pus cells – 30 to 35 /hpf**
- U.Protein- +++
- U.Sugar- nil

Blood CS- No growth

COVID RTPCR- negative

- Urine culture **: *Proteus mirabillis***

- **USG AP-**
- Bulky involuting uterus

  Thickened and heterogenous

  endometrium, cholelithiasis

  without cholecystitis

- **CT AP-**
- Urinary bladder shows hyperdense contents s/o **Hemorrhagic fluid with wall edema sludge** s/o cystitis.
- Few **air pockets** noted in inferior and anterior wall s/o mucosal injury.
- Mild hepatomegaly
- Subcutaneous edema noted in anterior and mid abdominal wall

- MRI Brain – no neuroparenchymal abnormality detected.
- USG doppler of lower limbs-Bilateral lower limb venous doppler (DVT Screening) –no evidence of superficial and deep vein thrombosis.

- Provisional diagnosis at our hospital
- **Urospecticemia with Diabetic Ketoacidosis with Chronic hypertension with superimposed Pre-Eclampsia**

Patient was managed in SICU

Started on

- Broad spectrum antibiotics with gram negative coverage
- Sugars was controlled on Inj H.Actrapid according to BSL
- T. Telmisartan40mg OD started due to high BP recordings
- Inj.LMWH S/C

Past history

- Antepartum history

Primigravida registered at hospital A and had regular ANC visits(No specialist was available)

- Patient was diagnosed hypertensive from 2nd month of pregnancy. Patient took irregular medication and discontinued.
- She was diagnosed as diabetic during 6th month of pregnancy random blood sugar of 200mg/dl with HbA1c 7% and advised diabetic diet.

LABOUR RECORD

- Patient relatives gives a history of 18 to 20 hours of labour(**prolonged labour).**

- Therefore the patient was a case of mismanaged Hypertensive and Diabetes.

COURSE OF DYPMC

- After fortnight,patient recovered,extubated
- However,on PND25, in view of continued urinary infection and abdominal distention,USG Abdopelvis was done

USG Abdopelvis: (5/10/21) (Day25)

- B/L renal concretions with mild pyelonephritis (L>R)
- Urinary bladder was empty
- Moderate ascites

- Urosurgeon were consulted,Abdominal fluid tapping was done,where in Urea and Creatinine was present in the fluid

Contrast Enhanced CT (Abdopelvis)

- Infective loculated collections in peritoneum with peritonitis
- **Urinary bladder outline could not be made out**
- Status of bladder continuity cannot be commented upon as **Urinary bladder lumen is not filled with contrast**

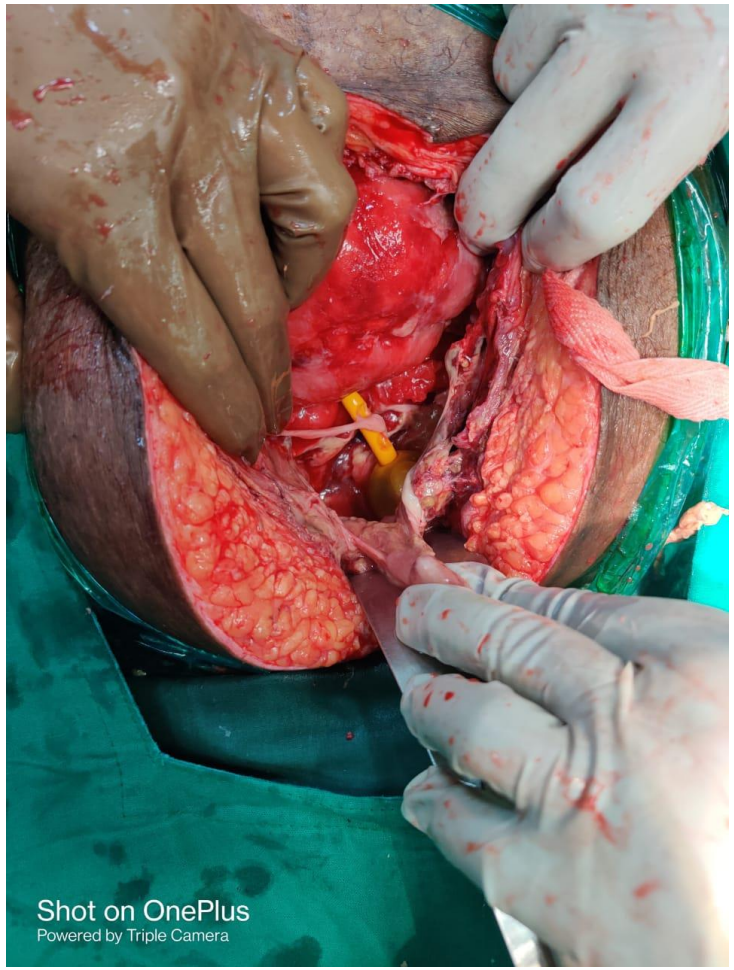
- In view of possibility of injury to bladder was suspected, patient was taken for **exploratory laparotomy** . (PND26)

- Intra-operatively dept of General Surgery and Urology were consulted.

- Laprotomy findings :

- Complete necrosis and sloughing-off of bladder wall was seen with only trigone and ureteric orifices intact with Foleys catheter was seen

- Adhesions of bowel loops seen covered with flakes.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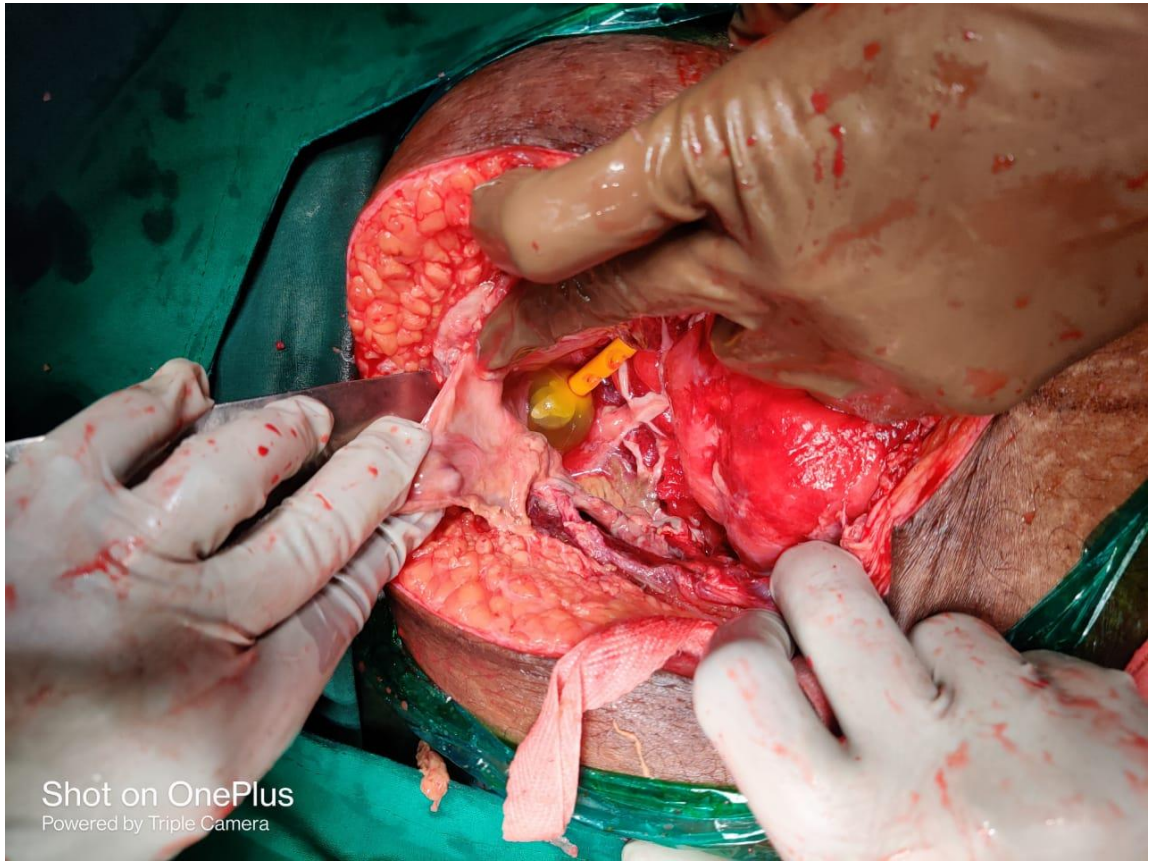
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-With sepsis and adherent bowel, diversion procedures were not possible.

-Thorough lavage was given.

-Simplest procedure : B/L ureteric catheterisation with placement of foley catheter per urethrally and suturing the available bladder trigone to lower abdominal musculature was done.

Post-op

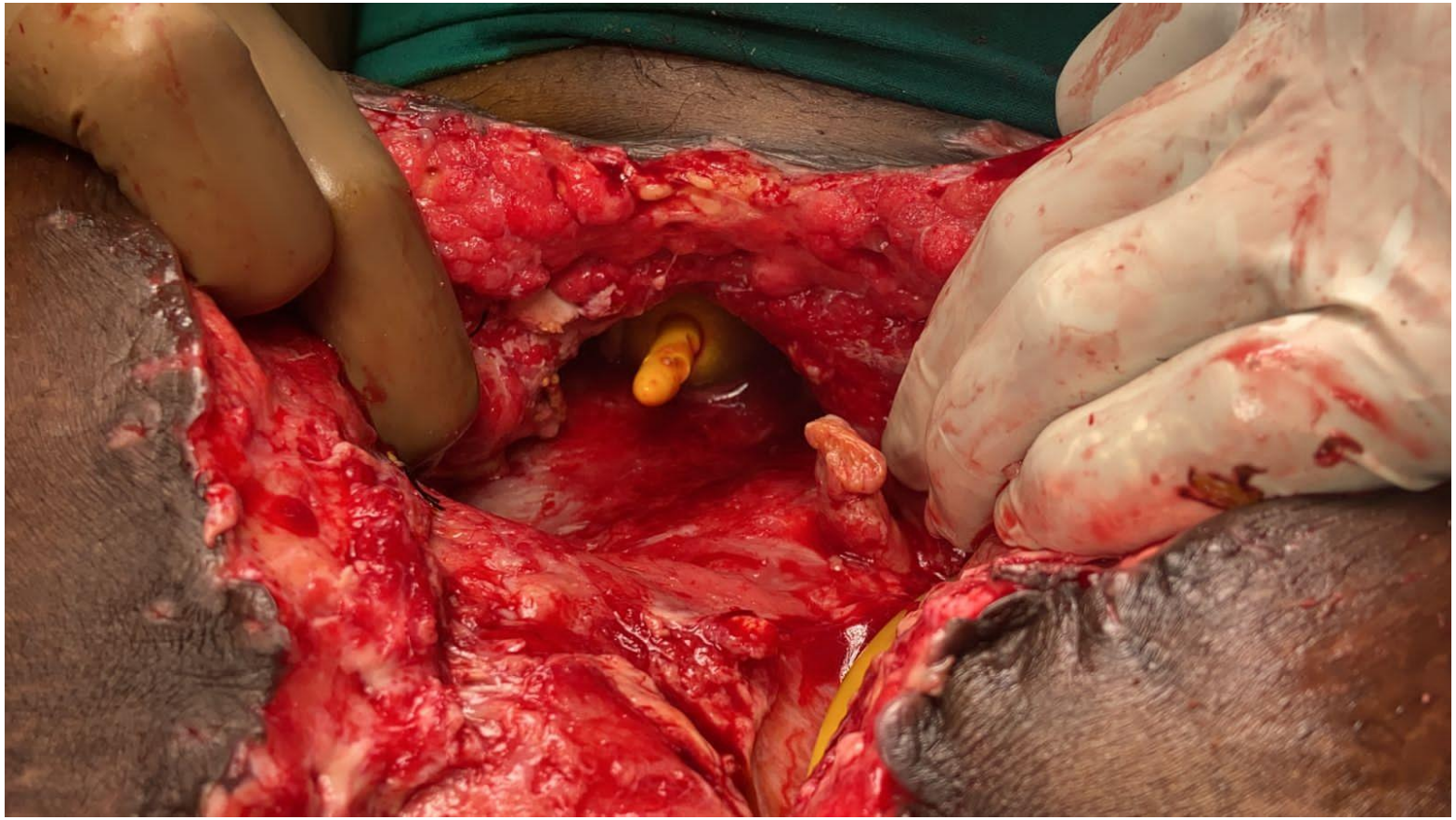
- GC : improved

- Output in foley catheter improved for few days followed by pericatheter leak and leakage of urine through the laparotomy wound.

21/10/21 (PND-41) POD – 15th

- Exploratory Laparotomy for possible bladder closure

- Intra-op findings :
- No residual bladder
- Only trigone and ureter orifices seen
- Small bowel adhesions
- No free omentum available
- Only ureteric catheters replaced by DJ Stents

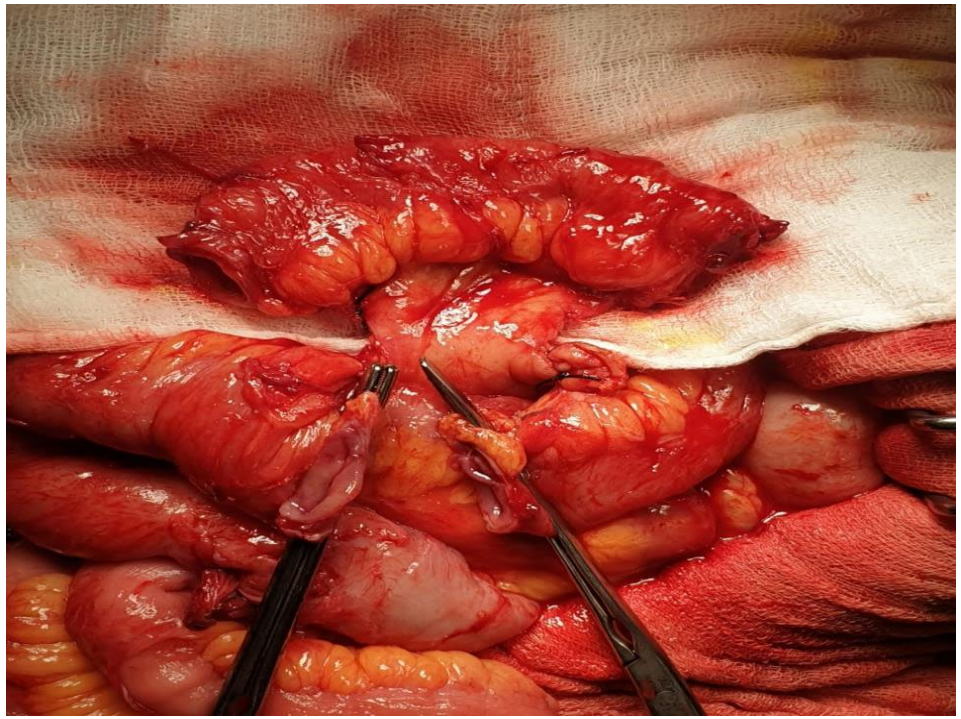


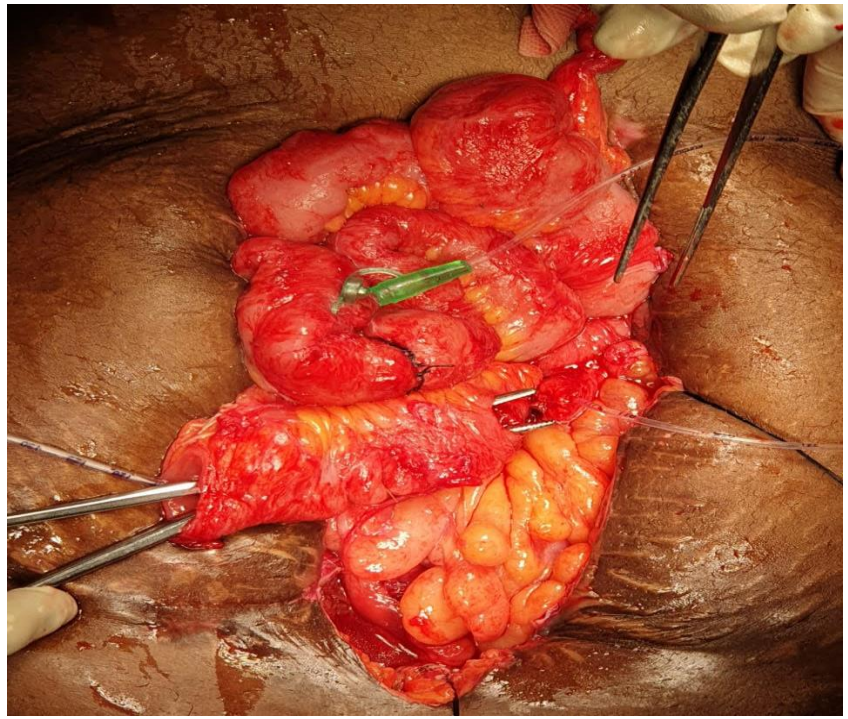
- B/L PCN insertion done under fluoroscopy guidance by Intervention Radiologist on 03/11/21.
- Discharged with B/L PCN-in-situ and advise
- Plan:Diversion after 3 months.
- Patient lost follow-up and reported after almost 6 months.
- Urine leakage from lower part of wound with B/L PCNs blocked.
- PCNs replaced.

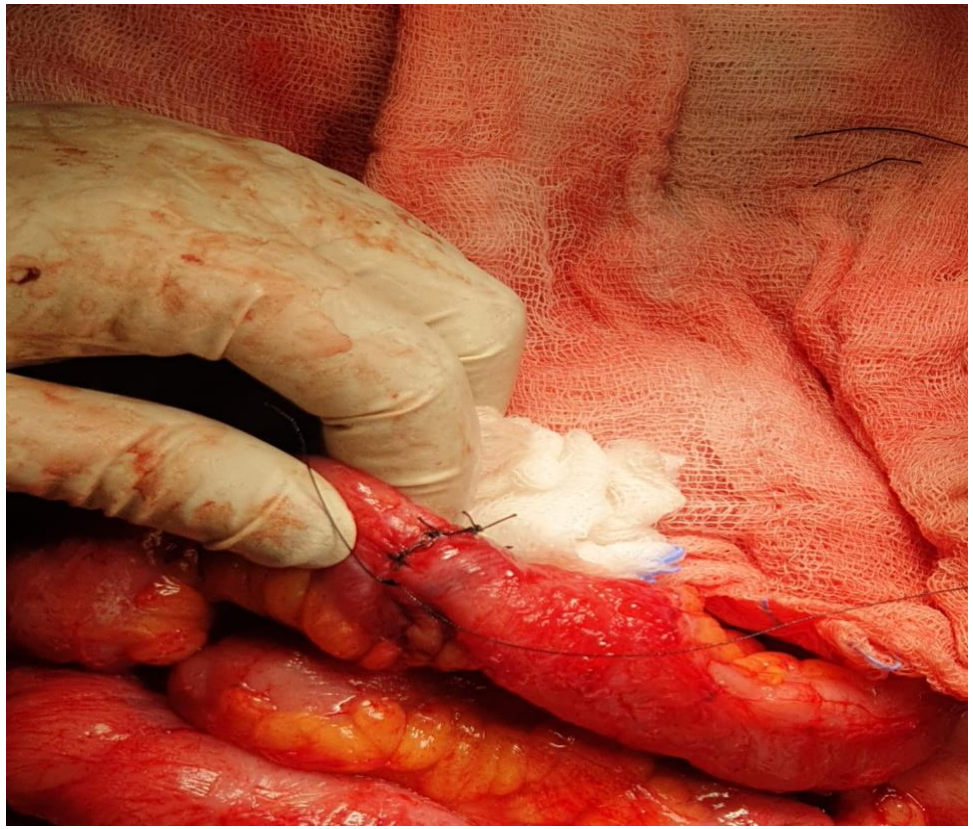
09/06/22 – Definitive Procedure (After 6 Months)

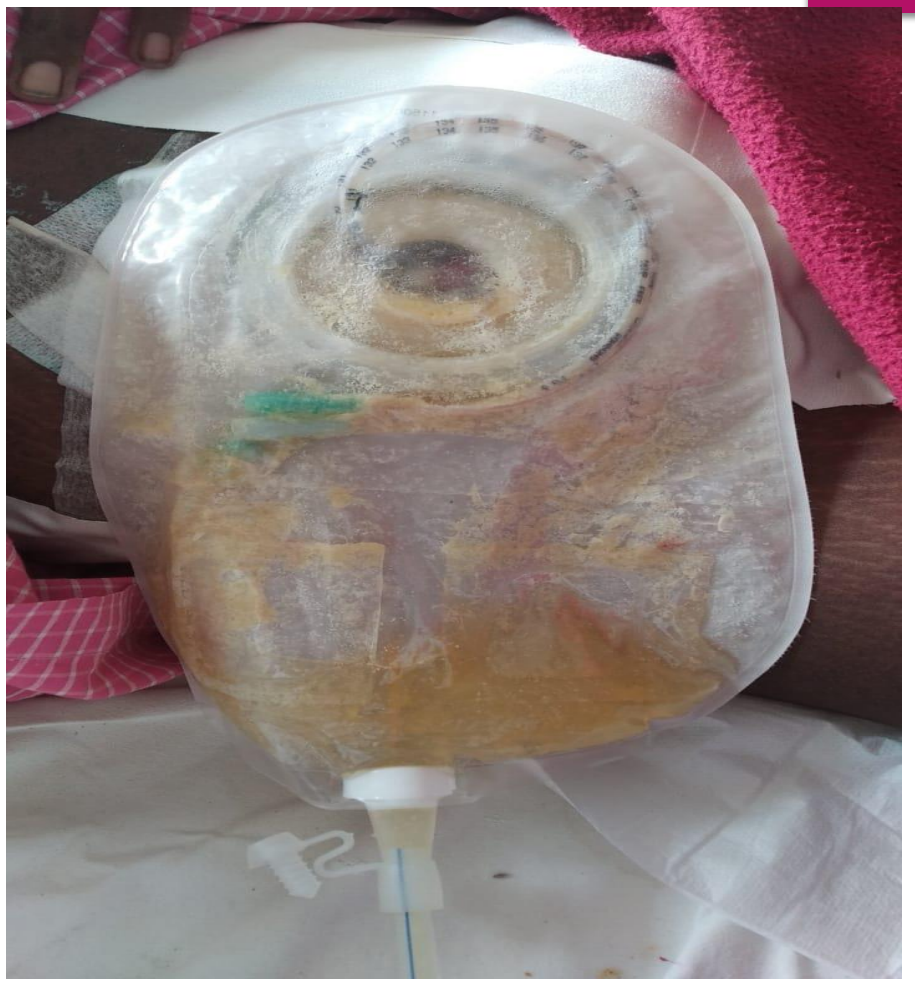
Exploratory laparotomy with ileal conduit with B/L ureteroileal anastomosis with end to end ileoileal anastomosis.

- B/L PCN were removed on POD-10.
- Abdominal drain was removed on POD-11.
- Discharged on POD-14.









WHAT WENT WRONG??

OBESITY+HYPERTENSION+DIABETES MELLITUS

MISMANAGED
ANC.
NO SPECIALIST.

PROLONGED LABOUR WITH LARGE BABY. (3.8kg)

DAMAGE TO BLADDER

RUPTURE OF BLADDER

KETOACODOSIS
UROSEPSIS

PREVENTION

1. Regular ANC checkups
2. Identification of risk factors
3. Effective labour management
4. **SBAR(Situation,Background,Assessment, Response)**

THANKYOU