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A Rare Case of Bladder Rupture

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INTRODUCTION

Bladder rupture without history of any trauma is known as spontaneous rupture of bladder, Incidence of bladder rupture is about 1:126000(1) (2). We have a case of spontaneous rupture of bladder in a case of previous cesarean section after VBAC (Vaginal birth after cesarean section). Post episiotomy routine catheterization reveal frank hematuria – A challenge for diagnosis to any obstetrician. During laparotomy frank urine ascites with 5 cm rent in bladder dome was found. Surgical suturing with ureteral, and bladder catheterization give good outcome. Rupture bladder during labour in previous C-section is a very rare case and it is primarily characterized only by *Hematuria*, and late by *Ascitis.*

CASE REPORT

A G3P2L2A0 patient came with c/o labour pains with 36 week of pregnancy with full dilatation and effacement of cervix and delivered male child within 15 minutes of admission. She has delivered her first child by normal vaginal delivery at home and second by cesarean section. She delivered a male child by vaginal delivery with episiotomy.

She had taken labour pain at home for more than 24 hours as she had one normal delivery at home and second was LSCS so she was afraid of hospital admission. Baby cried immediately and examined by neonatologist. Uterus was well contracted, no active bleeding per vaginum, episiotomy was sutured.

A simple bladder catheter was inserted after episiotomy was sutured which is the routine procedure, which shows frank hematuria. Blood stained urine was there so urobag was kept. Abdominal Girth was measured. The patient was kept conservatively for two hours. Uterus was well contracted abdominal girth was increased by 4 cm USG (Ultrasonography) was done. There is significant free fluid in Morrison pouch; uterus was well contracted, patient was haemodynamically stable, frank hematuria of about 300 ml.

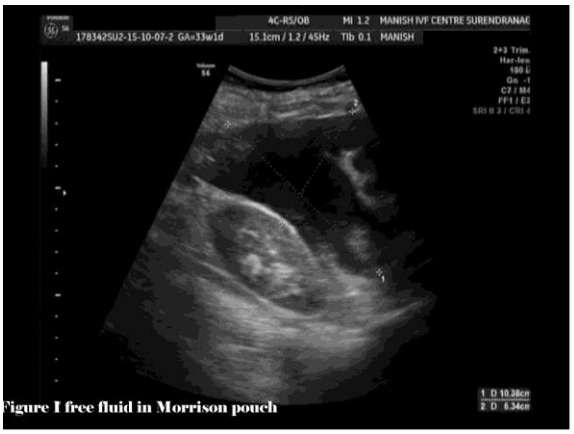

Fig. 1: free fluid in Morrison pouch

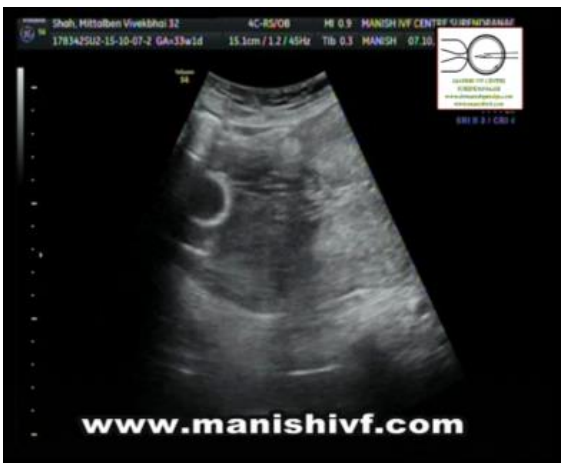

Fig. 2: Foleys catheter in bladder

Significamnt free fluid was seen in morrisoon pouch(figure 1). And catheter was seen in bladder (figure 2). After two hours a laparotomy was performed

INTRA OPERATIVE Finding:

Free Fluid (urine acites)(3). Previous C-Section scar has small rent, with peritoneum intact (figure 3). Bladder widely open at fundus which is its weakest part… Rent of 5 cm was noted (Fig 4.1 and 4.2). Trigone was normal and bilateral ureteric catheter was inserted (Fig 5). Bladder Foleys balloon was cut and both ureteric catheter was inserted in

Foleys catheter and bring out through urethra, another Foleys caterer with 14 French was inserted. Urine is draining in urine bag via both ureteric catheters. 7 stay sutures form one corner to another was taken with vicryl no 2.0 and kept with artery forceps (Fig 7)

Fig. 3.1: Uterus with intact peritoneum

Fig. 3.2: Uterus with intact peritoneum

Fig. 4.1: Bladder open at fundus

Fig. 4.2: Bladder open at fundus

Fig. 5: Ureteric catheterization

Fig. 6.1: Bilateral ureteric catheters in Foleys catheter

Fig. 6.2: Bilateral ureteric catheters in Foleys catheter

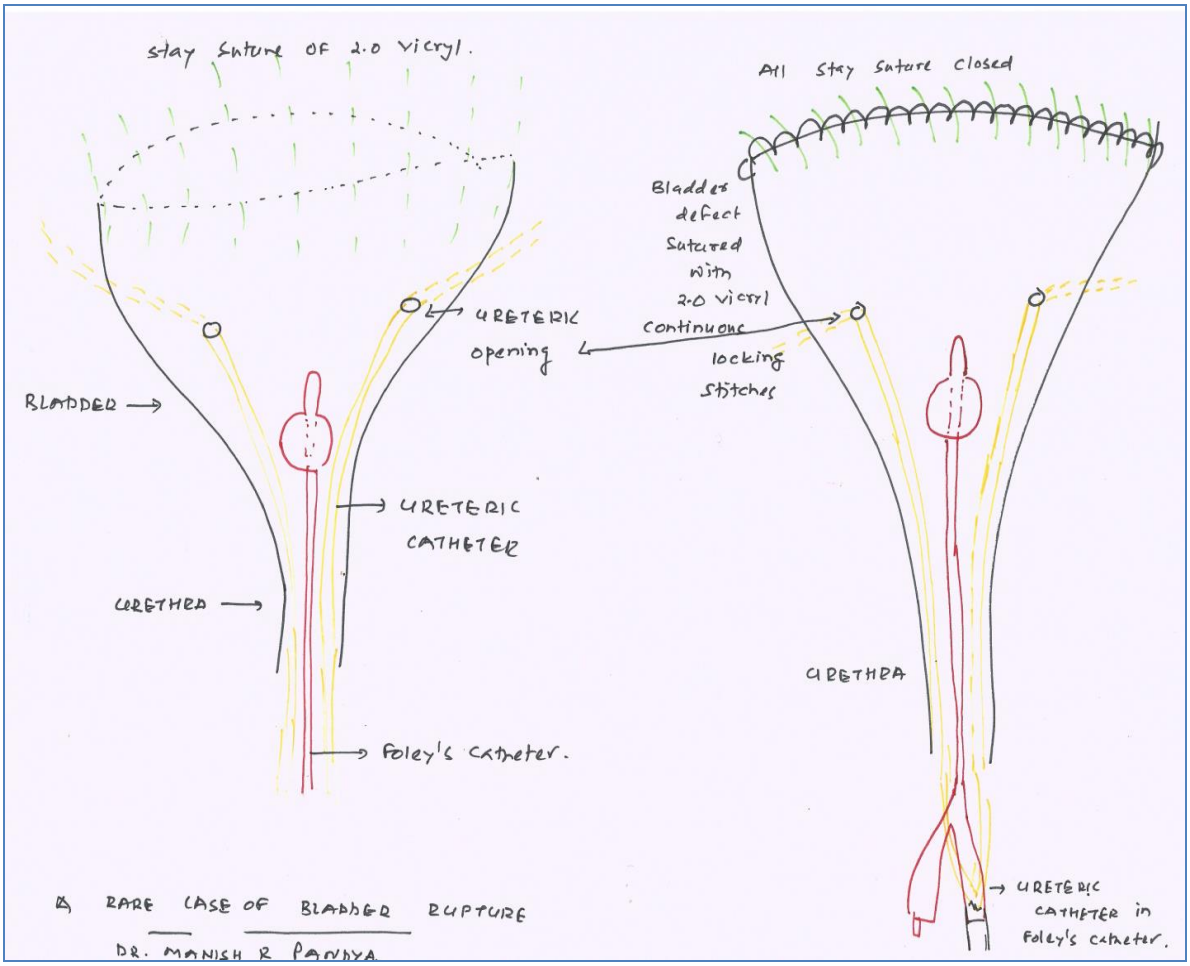

Fig. 7: Suturing of bladder

RUPTURE OF BLADDER

Bladder rupture after labour is very uncommon and usually we don't anticipate during labour.(1) Traumatic injury may cause bladder rupture but spontaneous rupture is not very common. We have a case of previous caesareans section so may be a new cause of spontaneous rupture of bladder

DISCUSSION

A rare case of spontaneous bladder rupture without any trauma is very uncommon particularly if delivery was done in institution. (4) (5) We have a case of VBAC (Vaginal birth after cesarean), she had one normal vaginal birth at home and second LSCS and this is her third labour and she had experience of both normal as well as caesarean. She does not want LSCS so she had taken labour pain at home and come to hospital with full dilatation and delivered within 15 minutes of admission. The diagnosis of bladder rupture is very difficult as there is no pain at supra pubic region only positive sign is frank hematuria. Ultrasonography gives clue of bladder rupture by presence of free fluid in Morrison pouch and position of Foleys bulb near caesarean scar and can move forward in to peritoneal cavity.(6) According to American association for surgery of trauma we have Type V of intra peritoneal rupture with more than >2 cm (8),(9). **In our case** bladder rupture is likely to occure 2 hrs prior to delivery ad patient had given history of urine passage at home, as she had taken labour pain at home and presenting part may have caused pressure necrosis of bladder dome as it is weakest part of bladder.(7) Routine simple catheterization post episiotomy had revealed hematuria and gives suspicion of something is not good so Foleys catheter was kept. Abdominal girth was measured and as patient hemodynamically stable shifted in observation ward after two hours abdominal girth was increased by 4 cm and hematuria was about 300 ml in urobag. Patient was stable with Hb 10 gm% and BP 110/70 mm of hg and Pulse 98/ minute. Ultrasonography shows free fluid in Morrison pouch and Foleys bulb just near to uterine scar. Patient shifted to Operation Theater and laparotomy was done with above mention finding. In our patient after separating the bladder from uterus, one end of ureteric catheter is passed in both ureter and the other end is passed from urethra to its opening and both ureteric catheters were inserted into the urine drainage port. Stay sutures were taken with 2.0 vicryl. To burry this continuous locking sutures were taken with 2.0 vicryl. Bladder was inflated to see the site of leaking, supra pubic drain was kept for 24 hrs and as removed. Foley's catheter and both ureteric catheters are kept in the bladder for 14 days. Before removal of catheter we have done bladder cystogram which shows no leaking.(Figure 8) Catheter clamping was done for one days and next day catheter removed and she had passed urine normally

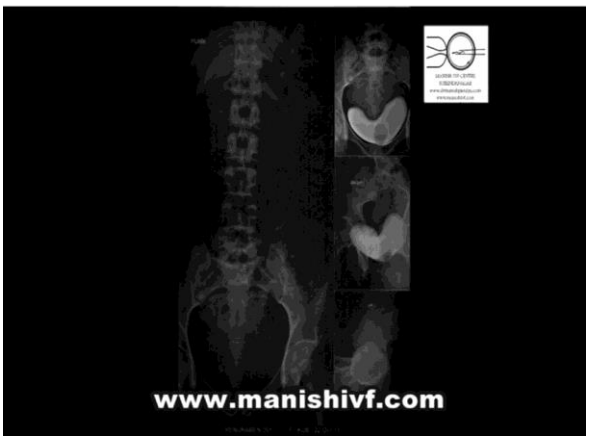

Fig. 8: Bladder Cystogram

CONCLUSION

Because of increased incidence of caesarean section more will be VBAC (vaginal Birth after Cesarean), Routine simple catheterization post delivery gives relief to patient to go for micturation with painful episiotomy scar and sometimes gives clue of bladder injury like this with only hematuria. Bladder is very forgiving organ of body, simple surgical closure with rest for 14 days will solve problem. As such incidence is 1.126000 but we can be one of them. Prevention with suspicion is better with good care and healthy outcome. Proper explanation and consent is necessary before any procedure and if explained well will solve most of post operative problem and complications

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