Intravesical Clots without Bladder and Uterus Rupture in Early Labor

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ABSTRACT

A case of intravesical hemorrhage associated with obstructive uropathy is life threatening and very challenging to diagnose during antenatal period, especially during labor. We report a case of intravesical hemorrhage with obstructive uropathy near term without underlying pathology. The aim of this presentation is to spread awareness of this condition, which is very rare and difficult to differentiate from uterine rupture. It can be diagnosed by detailed history, careful examination and ultrasonography (USG) investigation.

Keywords: Pregnancy, Ultrasound, Uterus rupture.

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CASE REPORT

We describe the case of a 32-year-old female patient who was not booked in our institution, had her antenatal check up at a district level hospital. A 37 weeks pregnant G3P2L2 with previous full-term normal delivery, literate, and of good socioeconomic condition reported to our institution in emergency with chief complaints of difficulty in micturition since last 15 days followed by hematuria 10 days back and again on day of admission and labor pains since 2 hours. She took some medical treatment for hematuria at a district hospital, the details of which were not known. She had no history of any urological problems in the past. She also had no history of any prior prolonged medical treatment or any surgery.

The patient was fully investigated and all her reports were within normal limits. She had USG 7 days earlier which showed 35 weeks pregnancy in cephalic presentation, placenta was posterior grade II and with adequate liquor.

On examination, patient was well-oriented, averagely built, and nourished. Her pulse rate was 86/minute, blood pressure was 130/80 mm Hg, pallor was present, and there was no abnormality in chest on auscultation. On per abdominal examination, height of uterus was 36 weeks with abnormal contour, bulging in lower abdomen was present, suggestive of obstructed labor causing bladder distension. Presentation was vertex, head was engaged, Fetal heart sound could not be localized by stethoscope due to bulging in lower abdomen. On per vaginal examination, cervix was 30 to 40% effaced, dilation was 2 cm, membranes were intact, vertex was at brim, and pelvis seemed adequate. Patient was in agony; intravenous fluid was started and self-retaining urethral catheterization was done, there was frank hematuria, antibiotics were given, and 2 units of blood was arranged and laparotomy was decided with provisional diagnosis of uterus with bladder rupture or pregnancy with bladder pathology. All routine investigations like complete blood count, liver function test, renal function test, and coagulation profile were sent prior to laparotomy. Attendants were counseled about the condition and prognosis. General surgeon on call was informed preoperatively about the emergency.

Abdomen was opened by transverse Pfannenstiel incision up to peritoneum. Uterus was found intact and bladder was grossly distended with clots felt inside, hence surgeon on call was called to join (Fig. 1). By that time, baby was delivered by lower segment transverse incision with difficulty as bladder was high up. A live male child weighing 2.5 kg was extracted as vertex. After delivery of the baby, uterus was explored thoroughly and no rent or tear was seen. Placenta and membranes were removed completely, uterus was closed in layers and complete hemostasis was achieved.1 After this, surgeon joined the case, bladder drainage was tried through Foley’s catheter, but was not successful, hence decision for anterior cystostomy was made. On opening the bladder about 500 to 600 mL of blood clots were evacuated (Fig. 2). On examination of urinary bladder, a small bleeder/mucosal tear was present on trigone area, which was compressed for 5 minutes. Bilateral ureteric openings were identified. After

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5 minutes there was no significant bleeding. Bladder wash was given and suprapubic catheter was placed and bladder wall was repaired in two layers (Fig. 3). Abdominal drain was placed and abdomen closed in layers after achieving complete hemostasis. One unit of packed cell volume (PCV) and 4 units of fresh frozen plasma were transfused intraoperatively and 1 unit of PCV transfused postoperatively.

The Apgar score of the baby was 7 and 9 at 1 and 5 minutes respectively. The reports of investigations sent were all within normal limits. She was kept on injectable antibiotics for 7 days and then on oral antibiotics. Cystoscopy was done on the 7th day and was found to be normal. Suprapubic catheter was removed on 14th postoperative day and patient was discharged with Foley’s catheter and called for follow-up after 15 days. Her postoperative period was uneventful.1-3

**DISCUSSION**

In this case, we could not rule out intravesical hemorrhage clearly because of symptoms like h/o pain abdomen, hematuria, and presence of lower abdominal swelling. It misled us as uterine rupture with bladder involvement. So before laparotomy, we kept two diagnoses in mind—either rupture uterus with bladder involvement or pregnancy with bladder pathology alone. Intravesical clots are very rare and it was difficult to diagnose it preoperatively as no such case has been reported. In this case, patient had only two episodes of hematuria but dysuria was present since 10 days, no other complaints were present, the patient did not take any treatment for these complaints. Her USG which was dated 1 week back did not reveal any bladder pathology. Had her USG revealed a pathology earlier, she could have been offered medical treatment only and could have been saved from a laparotomy.4

To the best of our knowledge, a single case has been reported in literature which was associated with uterus rupture unlike our case where both the uterus and bladder were intact.1 The likely explanation of formation of intravesical clots in our case was the presence of a small bleeder/mucosal tear. But, the origin of this bleeder is difficult to explain. This could be due to the direct impinging of fetal head on the bladder causing trauma, but this possibility is weak as the patient presented to us in early labor. Another explanation could be that the mucosa of the bladder wall might have already been damaged due to inflammation from infection, thereby resulting in friable surface prone to even minimal trauma, such as descent of fetal head; however, this also seems remote as the head was not deeply engaged in pelvis.3 Another cause could be the presence of an arteriovenous malformation which ruptured giving rise to bleeding. This is not totally plausible as
during anterior cystostomy, no such anatomic malformation was seen. Tuberculosis was also ruled out as there was no such history, no evidence of extragenital tuberculosis and cystoscopy did not give suggestive findings.

In our knowledge, this is the first case of idiopathic intravesical hemorrhage with intact bladder and uterus. Such case has also not been reported with any nonpregnant women or even in men.

CONCLUSION

Whenever a pregnant patient complains of labor pains and hematuria, we should first think of rupture uterus. But we should take detailed history and examine the patient carefully and investigate properly to confirm the diagnosis and also keep some bladder pathology in mind as differential diagnosis. The aim of this presentation is to make aware that sometimes this type of condition can mislead us in diagnosis and management.

REFERENCES