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Spontanous Rupture of Urinary Bladder without Uterine Rupture

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Abstract Objective: Spontaneous bladder injury is very uncommon with incidence of about 1:126000. We report a case of intraperitoneal urinary bladder rupture with intact uterus, which diagnosed intraoperative of G2P1 with history of CS. The rent was repaired in layers, catheterization and antibiotic prophylaxis offered for 14 days. Cystogram was done before the removal of catheter.
Key Word: Spontaneous urinary bladder rupture, intraoperative diagnosis.

Introduction:
Spontaneous bladder rupture is very rare but life threatening clinical condition. Bladder injury is usually iatrogenic or encountered secondary to trauma, malignancies or radiation exposure. Surgical repairing and drainage are the first choice of therapy. Delay in diagnosis and treatment increase mortality and morbidity. We present a case of spontaneous bladder rupture.

Case report:
A 34 year old, Nigerian patient, P 1+0+0+1, her blood group B rh+, 39wkG she had history of uncomplicated elective breech LSCS, she presented to labor ward as a case of labor pain 3 contractions per 10 minutes each contraction lasting for 50 second, associated with spontaneous PROM 4 hours before admission, this pregnancy was spontaneous and uncomplicated, no relevant past medical history or past surgical history other than CS.

On Examination:
she wasn't pale, well hydrated, PR 80 Blood pressure 100/70 mmhg temperature 37C. lepeoids maneuver: SFH36+–2wks G, longitudinal lie, cephalic presentation,1/5 engagement with EFW 3.200–+400g, per vaginal examination cervical dilatation was 5cm, effacement 80%, vertex presentation, -2 station, and clear liquor HG11g/dl, heamatocrit 30% urine for protein or aceton was negative, ultrasound reveal single viable fetus, cephalic presentation, fetal biometry corresponding to GA. Amniotic fluid index about 80 percentile chart. Trial for VBAC was decided, with continuous CTG monitor, after 3hours no reassurance fetal heart diagnosed and decision for urgent repeated CS done, before transfer to theater, folly catheter was inserted with urine output about 150 cc and clear. Under effect of spinal anesthesia, lower transverse abdominal incision done, after incision and refraction of vesico-utrine visceral peritoneum accidentally observe the folly catheter balloon intraabdominal, wide transverse irregular laceration involve posterior wall of urinary bladder away of trigon, with intact lower uterine segment. Male fetus was delivered about 3 kg with apgarscor 8,9,10. bladder repaired by vicryl 2/0 in two layers with catheterization for 14 days and prophylactic antibiotic for 10 days. Cystogram done before removal of urinary catheter.

Discussion:
The frequency of bladder rupture varies according to the mechanism of injury. Spontaneous bladder rupture about <1% of all urinary bladder injury with overall incidence of 1:126000.[1] Radiological investigation include cystogram and CTscan with contrast used for diagnosis of urinary bladder rupture,[2 -3] in our case diagnosis made during operation by direction inspection of teared posterior wall of urinary bladder. We suspect the injury occurred immediately before operation as the urine was clear during catheterization.
Spontaneous bladder rupture can occur during prolonged labor as persistence pressure from fetal head against the mother's pubis can lead to urinary bladder necrosis.[4-5] in our case there is no history to prolonged labor, so the most likely explanation that previous CS made adhesion between lower uterine segment and posterior wall of urinary bladder , ballooning to lower uterine segment result to this event as the laceration was irregular. Intraperitoneal bladder injury repaired in two layers with continuous bladder drainage for two weeks.
Overall the prognosis of spontaneous bladder rupture is very poor with mortality rate up to 50%.[6] Early diagnosis and treatment are very important to prevent maternal mortality and morbidity.

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