VESICO - UTERINE FISTULA: REPORT OF A CASE

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Key words
Vesico-uterine fistula, caesarean section

Abstract
A case of vesico-uterine fistula following caesarean section complication is presented. The fistula was diagnosed from clinical, radiological and endoscopic findings. The treatment and prevention of vesico-uterine fistula is discussed with particular reference to our setting.

Mots clés
Fistule Vesico-utérine, césarienne

Résumé
Un cas de fistule vesico-utérine après la complication de césarienne est présenté. La fistule a été diagnostiquée des conclusions cliniques, radiologiques et endoscopiques. Le traitement et la prévention de fistule vesico-utérine sont discutés avec la référence particulière à notre cadre.

Introduction
Vesico-uterine fistula is a rare event unlike vesico-vaginal fistula, which is a common problem in Sub-Saharan Africa with an estimated incidence rate of 3-5 per 1,000 deliveries and followed pressure necrosis from prolonged obstructed labour in over 85% of cases. 1,2

Sporadic cases of vesico-uterine fistula have been reported and majority of these cases resulted from caesarean section complication. 3-6. In all the four cases reported by Dare and colleagues 3 in Ile-Ife, Nigeria over a 10-year period, vesico-uterine fistula was secondary to caesarean deliveries. Six out of the 10 cases reported by Tazi et al 6 followed caesarean operations. All the 14 cases reviewed by Spruch 5 and colleagues in Lublin, Poland were complication of caesarean births. Other aetiological events reported in the literature include ruptured uterus, 9 vaginal deliveries with previous caesarean section 10,11 and translocation of intrauterine device. 12

Majority of patients with vesico-uterine fistula present commonly with cyclical haematuria or urinary incontinence and less commonly with both. 3,6 The diagnosis of vesico-uterine fistula is based on clinical, radiological (Hysterosalpingogram or intravenous urography) and endoscopic (cystoscopy, Hysteroscopy) evaluations 3-12.

The treatment of vesico-uterine fistula is largely by surgical repair, 3-12 but preventive measures involving sound surgical technique and paying attention to surgical details cannot be overemphasized. 3-5

Case report
A 29-year-old Housewife Para 210 (non alive) presented with a 5-year history of cyclical haematuria. She had an emergency repeat Caesarean section following failed trial of scar at a private hospital and was delivered of a fresh female still born that weighed 3.2kg. The operation was complicated by wound sepsis and leakage of urine from the surgical wound. She subsequently had repair of the urinary fistula (via abdominal approach) 4 years earlier, after which she gained continence but developed cyclical haematuria. There was no history of leakage of urine or faeces per vaginum. Her first confinement was in 6 years previously, by emergency caesarean section following prolonged labour, with uneventful postoperative period. However the female child died of diarrhea disease at four month of age.

Clinical examination revealed a healthy young lady with a height of 1.54 metres and she weighed 87 kilograms. Chest, cardiovascular and abdominal examinations were normal except for a wide infraumbilical midline scar of previous operations. Pelvic examination revealed a normal vulva, vagina and cervix. The uterus was of normal size and slightly mobile. Both adnexae were normal and the Pouch of Douglas was empty.

Baseline investigations were normal. Urine microscopy revealed no evidence of urinary tract infection.
infection. Hysterosalpingogram revealed diminished uterine cavity capacity and leakage of contrast into the urinary bladder. The left fallopian tube was demonstrated up to its fimbrial end with free spillage of contrast. The right fallopian tube was not visualized. The diagnosis of vesico-uterine fistula was made and she was counselled for surgery (cystoscopy and transvesical repair). Surgery was done under general anesthesia. Cystoscopy revealed normal findings except for an obvious fistulous tract on the postero-fundal aspect of the bladder measuring about 2 by 2cm. The fistula was then catheterized using a ureteric catheter. The abdomen was opened via the previous incision and the bladder mobilized. The bladder was opened via a longitudinal incision and the fistula was evident with the ureteric catheter. The two epithelial surfaces were separated and the uterus repaired in two layers using coated Vicryl® 2/0. The bladder was similarly repaired in two layers using same suture material. A 3-way urethral Foley’s catheter was left in-situ for bladder irrigation and drainage. Irrigation was discontinued after 48 hours postoperative as the irrigation effluent was clear and the urethral catheter was removed on the 7th postoperative day. She made uneventful recovery and was discharged home on the 8th postoperative day. She was seen again 8 days after last menstruation, which was normal (per vagina), lasted 3 days and there was no haematuria. She was counseled for short-term contraception in order to avoid pregnancy for at least six months to allow for adequate healing of the repair and to report self for antenatal care when pregnant. She opted for barrier contraceptive (condom).

Discussion

Vesico-uterine fistula is rare in our environment especially when compared to vesico-vaginal fistula. It is nearly always due to inadvertent unrecognized bladder injury and inclusion of bladder in the suture closure of uterine incision during caesarean section. Postoperative pelvic and wound infections are additional factors. Diagnosis of vesico-uterine fistula is based on radiological (via hysterosalpingogram or intravenous urography) and endoscopic (cystoscopy or hysteroscopy) demonstration of fistula. In this case the fistula was demonstrated with hysterosalpingogram and cystoscopy. When vesico-uterine fistula is diagnosed late as in this case, surgical repair is mandatory with meticulous dissection and avoidance of closure of fistula under tension. However when bladder injury (involving the mucosa) is recognized intra-operatively, it must be promptly repaired preferably in two layers and the bladder drained (continuously) for at least seven days post-operatively.

Prevention of vesico-uterine fistula cannot be overemphasized. While adequate antenatal and intrapartum supervision are essential to prevent prolonged labour as advocated in previous reports, immense experience and sound surgical technique for caesarean section is sine qua non to avoid this rare but agonizing morbidity. Perhaps it is time to advocate that repeat caesarean section in our environment is strictly for specialists and is beyond the capabilities of general duty clinicians.

References