

A Case Report on Vesico-Uterine Fistula: A Very Rare Complication of the Lower Caesarean Section

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ABSTRACT

Vesico-uterine fistula is a very rare complication of lower caesarean section. There has only been two cases seen at the Department of Urology in the past 2 decades. Patients usually present in the early post operative period with the problem of continuous urinary incontinence. On the rare occasion, recurrent urinary tract infection, recurrent gross painless haematuria, or secondary infertility associated with secondary amenorrhoea would be the presenting complaint.

Keywords: Vesico-uterine fistula, Surgical management

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INTRODUCTION

Vesico-uterine fistula is the least common of all the uro-genital fistulae, accounting for 1% to 4% in most series^(1,2). In a review of literature, Tancer suggested that vesico-uterine fistula has become more frequent with increasing use of the abdominal route rather than opting for a difficult vaginal delivery and the predominance of lower segment rather than the classical upper-segment uterine incisions. In 1979, Dubuisson and Associates collected 11 cases reported in the world literature⁽²⁾ while in 1985 Pawar found only 21 reported cases in addition to his own cases described in the English literature⁽⁴⁾.

Almost all cases have been the result of caesarean sections, although occasionally other causes have been reported, such as rupture of the lower uterine segment and bladder during complicated labour⁽⁵⁾, tuberculosis of the bladder⁽⁶⁾, and a case secondary to an intra-uterine contraceptive device⁽⁷⁾. Patient with vesico-uterine fistula usually present with urinary incontinence in the early post operative period. However, a minority may present months or years after their caesarean sections with recurrent cyclical painless gross haematuria with or without vaginal leakage of urine⁽⁸⁾, recurrent urinary tract infections, secondary infertility or amenorrhoea.

We report a rare case of vesico-uterine fistula managed in our hospital. Only the second such case in the past 20 years.

CASE REPORT

A 37-year-old Chinese lady underwent an emergency lower segment caesarean section (LSCS) in July 1995 in another hospital. According to the operative notes, the LSCS was relatively uncomplicated. Postoperatively she developed problems of fever, ileus and gross haematuria. She was managed conservatively with oral antibiotics for a duration of six days before being discharged well. The patient was relatively asymptomatic until she noticed that her menses did not return. At 3 months postdelivery she presented at our hospital with the problem of secondary amenorrhoea in September 1995. Clinical examination then was essentially unremarkable and a dilatation and curettage was performed. Histology of the endometrium was normal.

In October 1995, 4 months after the LSCS, she developed the first episode of gross painless haematuria and was seen at the Department of Urology. Intravenous urogram done showed normal upper tracts and flexible cystoscopy showed gross cystitis. Urine culture done grew *E. coli*. She was managed with oral antibiotics and treated as for cystitis. The patient was again seen at the Department of Urology in March 1996 for recurrent gross haematuria and clots. After adequate bladder washout, cystoscopy noted a fistula in the junction of the posterior wall and trigone of the bladder. At this point in time a vesico-uterine fistula was suspected and the patient underwent further investigations. A repeat intravenous urogram done again showed normal renal collecting system with no evidence of hydronephrosis or any obvious lesion in the bladder. A cystogram was then arranged and this showed no obvious fistula (Fig. 1). A hystero-gram however showed a vesico-uterine fistula (Fig. 2). At no time was urinary incontinence a problem in our patient.

The patient underwent a laparotomy through a lower abdominal midline incision. The fundus and the posterior surface of the uterus and appendages were normal but the vesico-uterine fossa was obliterated by dense adhesions. The dome of the bladder was open between 2 holding sutures and the posterior wall incised vertically down to the fistula which was then encircled and excised. The uterine end of the fistula

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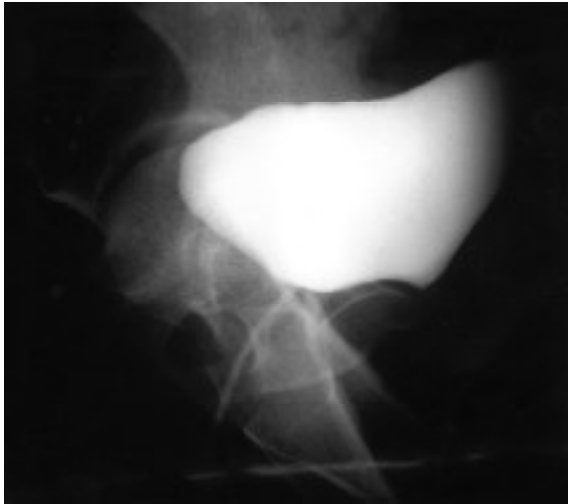


Fig. 1 Normal cystogram.

appear to be situated at the site of the lower uterine segment incision. This was freed from the back of the bladder and the old uterine incision was opened up. It was then found that there were granulations on the posterior uterine wall which were adherent to the fistula site anteriorly and occluding the internal os of the cervix. The adherent granulations were freed by sharp dissection and the uterine incision was closed with absorbable sutures. The bladder was then closed with two layer of absorbable sutures. At the same time tubal ligation was performed as requested by the patient.

Postoperative recovery was uneventful and the patient was subsequently discharged on the 4th postoperative day. On review three years after the surgery, the patient has had no recurrence of gross haematuria and her menses had returned.

DISCUSSION

Vesico-uterine fistula is a rare but recognized complication of lower segment caesarean section^(1,2). Urinary incontinence is usually immediate or occurs within a few days post LSCS but this did not occur in our patient and serves to demonstrate how elusive the diagnosis of urinary fistula can be.

It is interesting to speculate the events surrounding the origin of the fistula. There is no doubt that in our patient this arose at the time of the caesarean delivery and it may have been related to extra haemostatic sutures inserted in the lower uterine segment. The paralytic ileus as seen in our patient could be explained by the fact but there was some urinary leakage into the peritoneal cavity in the early postoperative period.

When the presentation is delayed, the combination of amenorrhoea and cyclic hematuria in the absence of urinary incontinence has been described as pathognomonic of vesico-uterine fistula. In our patient and Hudson's⁽⁹⁾, granulation tissue on the posterior

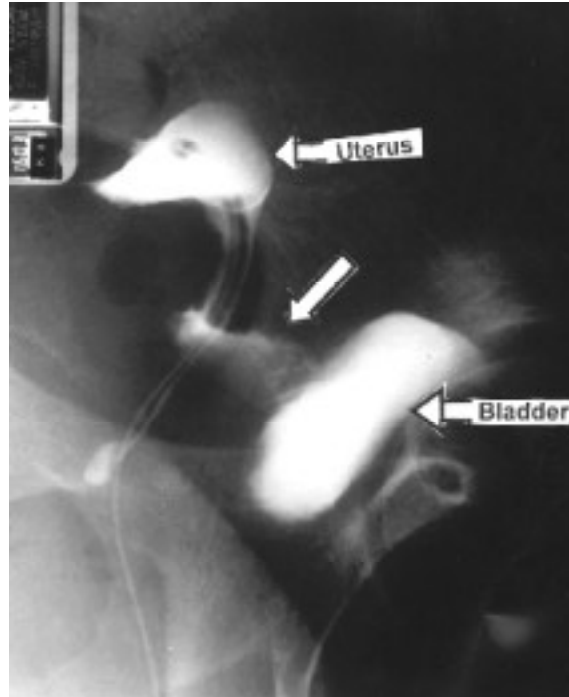


Fig. 2 HSG showing vesico-uterine fistula. (see arrow)

uterine wall occluded the internal os, thus diverting menstrual blood through the fistula into the bladder.

Injuries to the bladder discovered at the time of caesarean section should be repaired immediately. If the diagnosis of a vesico-uterine fistula is made in the early postoperative period, there have been a few reported cases of spontaneous closure of fistula with continuous urethral catheter drainage for two weeks with antibiotic cover. Molina⁽¹⁰⁾ described a successful case of cystoscopic fulguration following failed conservative urethral drainage. However the accepted treatment for this rare condition is usually surgical. An abdominal approach is recommended because vesico-uterine fistulae are not easily assessable vaginally. Surgical repair should be delayed for at least 2 to 3 months after the caesarean section to allow for oedema and inflammation to subside. Repair of the fistula is done with excision of the fistulous tract between the uterus and the bladder, and multi-layer closure of each organ with absorbable sutures. A supra-pubic bladder drainage completes the procedure.

CONCLUSION

In the case of urinary incontinence after a caesarean section it is important to bear in mind the possibility of a uro-genital fistula. Haematuria associated with amenorrhoea is almost always pathognomonic of a rare vesico-uterine fistula. Cystoscopy may be negative and in doubtful cases a cystogram or hystero-gram should be done and may prove to be diagnostic for this rare condition.

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