URETERO-UTERINE FISTULAE IN OBSTETRICS

(Report of 3 Cases)

by

ASHA DUMACHIGUI,* M.D.

S. B. SEN,** F.R.C.S.

and

P. NIRUPAM(NAYAK,*** D.G.O., M.R.C.O.G.

Trauma to the urinary tract appears to be on the decline in obstetrics due to marked improvement in the intranatal care. In some of the developing countries a number of vesico-vaginal fistulae are still seen. However, the occurrence of ureteric fistulae is rare. They from 1.7 to 5.1% of all urinary fistulae (Rao 1975 and Sarda and Mukherjee 1977). Ureter is much more prone to injury during gynaecological surgery. In a series of 45 cases of ureteric fistulae reported by Chichton (1965) only 7 occurred in obstetrical cases. Similar observations have been made by Mahon *et al* (1963) who have reviewed the French literature extensively, adding 1 case of their own. In obstetrics, ureteric injury follows difficult forceps application, lower segment caesarean section and hysterectomy for rupture of uterus. Obstructed labour leading to compression of lower end of ureter and lower segment of uterus between the foetal head and pelvic brim appears to play an important role in the etiopathology of uretero-uterine fistulae (Youssef 1960).

*Lecturer, Department of Obstetrics & Gynaecology.

**Ex-Assistant Professor, Department of Surgery.

***Professor and Head, Department of Obstetrics & Gynaecology.

Jawaharlal Institute of Postgraduate Medical Education and Research, Pondicherry-605 006.

Case 1

Mrs. S. aged 28 years, P 3 + 2 G6, was admitted to the hospital at 36 weeks of pregnancy. Her first 2 pregnancies ended in breech deliveries at home and both babies died immediately after birth. Her third and fourth pregnancies terminated in abortion. A lower segment caesarean section had been performed for her fifth pregnancy. The patient was taken up for cesarean section at the onset of labour. On laparotomy there was a big haematoma at the left angle of the previous scar. A lower segment transverse curvilinear incision was made after correcting the dextrotation. While delivering the baby the left angle got extended and there was considerable difficulty in achieving haemostasis. One unit of blood was transfused. Patient was on Penicillin and Streptomycin postoperatively. Her temperature was between 99°F and 100°F; the urine output varried from 400cc to 1350cc.

On the 23rd postoperative day patient complained of watery discharge per vaginum; she could also pass urine per urethra. On speculum examination, urine was coming through the cervix and Methylene blue test was negative. On cystoscopy there was no excretion of urine from the left ureteric opening. Intravenous pyelogram revealed hydro-ureter and hydronephrosis on the left side. A week later nephrostomy was performed to relieve the urinary obstruction. There was no healing. Laparotomy was performed 2 weeks later. On exploration the pulsations of the left uterine artery were absent and some suture material was found

suggesting the inclusion of ureter in a ligature. Uretero-neo-cystostomy was decided upon. After mobilising the ureter and dividing it above the site of fibrosis it was anastomosted with the bladder through a tunnel close to ureteric orifice over a polythene splint. Bladder was drained through a suprapubic MaLlecot's and urethral Foley's catheters. Intravenous pyelogram done on the 40th day showed the ureters and kidneys to be normal.

Case 2

Mrs. J., aged 35 years, P5 + 0 G6, was admitted to the hospital as a case of obstructed labour due to cephalopelvic disproportion leading to threatened rupture of the uterus. She had been in labour at home for 26 hours. Diagnosis was confirmed and a laparotomy was performed. The lower segment was markedly oedematous. A lower segment caesarean section was performed. There was no difficulty in achieving haemostasis. On the 15th postoperative day the patient complained of dribbling of urine per vaginum. Speculum examnation and Methylene blue test confirmed the diagnosis of uretero-uterine fistula. No abnormality was detected in the intravenous pyelogram.

Laparotomy was performed and after opening the bladder indigo-carmine was injected intravenously. There was no excretion of urine from the left ureteric opening. Ureter was easily exposed from pelvic brim to the ureterovesical junction. It was of normal calibre and pulsations of uterine artery were good. Uretero-neo-cystostomy was performed. Patient was discharged in good condition.

Case 3

Mrs. S. aged 32 years, P3 + G4 was admitted to the hospital as a case of obstructed labour due to cephalopelvic disproportion leading to threatened rupture of the uterus. A lower segment caesarean section was performed. There was no difficulty during the operation. The patient complained of dribbling of urine per vaginum on the 10th postoperative day. Speculum examination and Methylene blue test confirmed diagnosis of uretero-uterine fistula. Intravenous pyelogram was normal.

Laparotomy was performed and bladder opened and Indigo carmine was injected intravenously. There was no excretion of urine through the right ureteric opening. The ureter was dissected on that side. It was of normal calibre and pulsations of uterine artery were good. Uretero-neo-cystostomy was performed. There was no dribbling of urine per vaginum after the operation.

Discussion

In the first case the extension of the incision and difficulty in achieving the haemostasis led to the inclusion of ureter in the ligature. The presence of hydro-ureter and hydro-nephrosis and absence of uterine artery pulsations supported the diagnosis as was also noted by Mahon *et al* 1963. The second and third cases had been in labour for more than 24 hours with the head impacted at the brim. Pressure necrosis appears to have played an important role in the production of uretero-uterine fistulae. Intravenous pyelogram in both cases did not show any hydro-ureter and hydronephrosis. On laparotomy there was no fibrosis and calibre of the ureter was normal.

Summary

1. Three cases of uretero-uterine fistula occurring in 3 obstetrical patients have been presented.

2. The etio-pathology, diagnosis and management have been discussed. Nineteen cases both English and French literature have been reviewed.

References

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