A Case of Uretero-Uterine Fistula (UUF) Following Caesarean Section

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Mrs. J.K. 27 years female presented with history of leakage of urine per vagina besides normal passage of urine per urethra for the last two months following caesarean section done at some private hospital.

On examination patient had a midline infraumbilical scar.

Vaginal examination

On inspection there was leakage of urine per vaginum. On speculum examination there was no abnormal opening (fistula) in the vaginal wall. The urine was found to be coming out of the cervix. Uterus was R/V normal size, clear Swab test was conducted by injecting methylene blue dye into urinary bladder through urethral catheter. The swabs were not stained with dye but highest swab was wet with urine. Hence the leakage of urine was not from the bladder but from ureter.

Ultrasonography of abdomen:

Mild hydronephrosis on left side was reported.

IVP showed mild hydronephrosis of the left kidney with hydroureter upto ischial spine. Extravasation of dye was seen in the perivesical region. Bladder was outlined and filled normally. Right kidney and ureter were normally outlined. Patient was diagnosed to be a case of uretero-uterine fistula and was investigated for surgery.

Operation

Under general anesthesia, abdominal scar was excised and peritoneal cavity opened through same incision. Omentum was adherent to the peritoneum and to the uterus on left side and anterior wall. There was collection of urine on the left side of uterus and pouch of Douglas. On separating omentum, there was a small opening of left ureter in the peritoneal cavity. On probing the ureteric opening which was communicating with peritoneal cavity, the probe could not go down into the lower part of ureter and bladder. Rather the probe entered into the uterine cavity, which confirmed the diagnosis of uretero-uterine fistula (UUF). The urine was found to be leaking from the opening.

The bladder was opened on the anterior surface extraperitoneally. There was no abnormal opening in its wall. The left ureteric orifice was probed. The probe could not go beyond 1.5 cm. No urine was coming out of the left orifice. The urine was coming out of right ureteric orifice. The peritoneum over the left ureter was divided upwards and downwards upto the bladder. There was a catgut stitch on the left side of uterus and encircling lower end of ureter causing necrosis of ureter. The ureter in its lower end divided at ligature site and debridement done to freshen the end. The ureter implantation on the posterior surface of the bladder was done by Lead Better Technique (submucous tunneling of ureter). Bladder was drained by urethral catheterization with Foleys catheter. Bladder closed in the layers. Peritoneum over the ureter repaired. Pelvic cavity and retropubic space drained by corrugated drains. The abdominal wall closed in layers.

Follow up

Patient had haematuria for four days which cleared afterwards. The retropubic and pelvic draines were removed after four days. Foley's catheter was removed after 10 days. There was no leakage of urine and wound was healthy. Stitches were removed after 10 days. Patient was discharged on 11th day.

On follow-up after 2 months patient had no leakage of urine P/V.