Vesicocervical Fistula Following Vesicovaginal Fistula Repair : A Rare Case Report

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Abstract:

Vesicocervical fistula following vesicovaginal fistula repair is a very rare condition. It is a complication following repeated lower uterine cesarean section. We report a case of an young married woman who was admitted in the department of urology, Banghabandhu Sheikh Mujib Medical University Hospital with vesico-cervical fistula following vesicovaginal fistula repair. Reposition of cervix into vaginal vault and repair of urinary bladder was done. There was no such report of vesicocervical fistula following vesicovaginal fistula repair from Bangladesh.

Keywords: Vesicocervical fistula following vesicovaginal fistula, repair.

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Introduction:

Vesicocervical (vesicouterine) fistula is a rare type of fistula accounting for only 1 – 4% of all cases of urogenital fistula[1,2]. However the incidence of vesicouterine fistula has been on the rise due to increasing incidence of lower segment cesarean section rather than primary[1,2]. There are other newer causes for these fistulas such as uterine artery embolism, difficult vaginal delivery, migration of an intrauterine contraceptive device, high delivery by forceps, very rarely due to malignancy or necrosis of bladder wall directly over the dehiscence of a lower segment cesarean section scar[3-7]. When there is inadequate mobilization of the bladder inferiorly or laterally, the bladder may be injured with delivery of a large fetal head, or it may be accidentally included in the suture used to close the uterine incision. The fistula forms when sutures are absorbed. In most of the cases the vesical orifice of the fistula is in the supratrigonal location in the midline and, from the genital side, just cephalad to the internal cervical os[8].

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Case report:

A 35-year-old married female attended the urology outpatient department with history of periodic passage of blood in urine for 4-5 days in each month for the last 6½ years. It was painless, total, not associated with passage of clot or any fleshy material. She correlates it with her menstrual cycle, though she did not pass menstrual blood per vagina. She experienced all the feelings of menstruation before passing blood with urine. She had a history of cesarean section with still born (2nd baby) approximately 7 years back followed by involuntary leakage of urine. Owing to this she got admitted in a teaching hospital of Dhaka city, where she underwent a surgery per vaginally 6½ years back. This stopped her involuntary leakage of urine but her menstruation ceased.

On physical examination a transverse healed scar mark of LUCS was present in the suprapubic area. External genitalia was normal. Per vaginal examination revealed absence of cervix. Ultrasound report revealed cervix like structure having a linear hypoechoic area between urinary bladder and uterus. Micturating cystourethrogram was unremarkable. Cystoscopy revealed an elliptical opening

like cervical opening of about 2cm diameter just to the right of the midline of the posterior bladder wall and 2.5 cm above the interureteric bar. Vaginoscopy revealed absence of cervix, internal end closed and length of about 5 cm. Exploration was planned and patient was made fit for operation. Under general anaesthesia patient was placed in Trendelenberg position and abdomen was opened by lower midline incision. Urinary bladder was bisected upto fistula. Surprisingly cervical opening (external os) was found inside the bladder and separated from cervix, dissection carried downwards towards vaginal vault. Transverse incision was made in the anterior and upper part of vagina anastomosis was performed between cervix and vagina in interrupted fashion with 2-0 absorbable suture keeping a 6Fr silicon catheter in the uterine cavity, inflated with 2cc distilled water, urinary bladder was closed in two layer with 2-0 absorbable suture keeping a 18 Fr trichannel Foley's catheter and omentum was placed between urinary bladder and cervix. One drain tube was placed in the pouch of Douglus, another one in the retropubic space. Uterine cavity catheter, retropubic drain and drain in pouch of Douglus were removed in 4th, 6th and 7th postoperative day respectively. Skin staples were removed in 8th and 10th postoperative day. Urethral catheter was removed in 18th postoperative day. She had menstruation in 3rd postoperative day pervagina and continued for further couple of days. This time she did not pass blood with urine. She become discharged on 22nd postoperative day. She was pregnant 15 months following the operation.

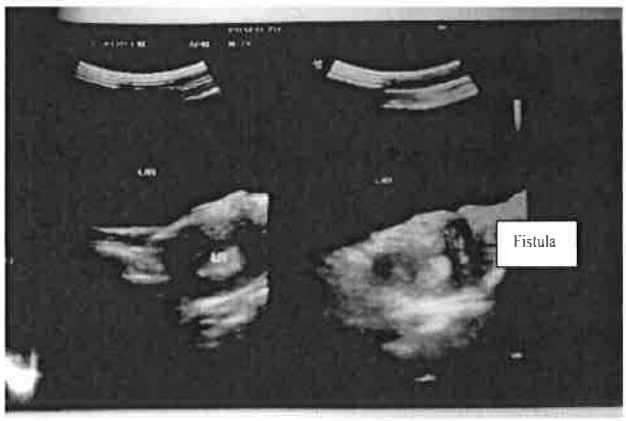

Fig 1: *Ultrasound of vesicouterine fistula*

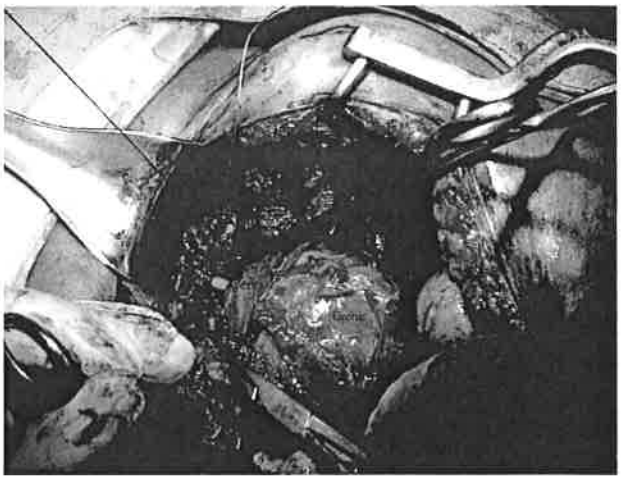

Fig-2: *Anastomosis between cervix and vagina*

Discussion:

Ninety-two cases of vesicouterine fistula were reported in the world literature since 1908. The lesion was rarely seen before 1947. It usually followed a vaginal operative delivery and the usual complaint was total urinary incontinence. Diagnosis was most often made indirectly by seeing urine or dye pass through an intact external cervical os. Management usually involved a vaginal surgical approach to repair[9]. Lent V and Laascr M reported 800 published cases in literature[10]. Majed SM and Subhani SS published an unusual case of Youssef's syndrome (vesicouterine fistula) and its relationship with placenta percreta[11]. Issa MM, Schmid and Stamey TA reported a 30-year-old female with vesicouterine fistula (Youssef's syndrome). Surgical therapy included transabdominal repair of bladder and uterus with interposition of greater omentum. Uterine function was preserved with subsequent successful pregnancy and delivery of a healthy baby boy by elective cesarean section at 36 weeks' gestation[12]. Bhat S and Thomas A reported seven patients in their thirties presented with cyclical haematuria, apparent haematuria and urinary in continence following lower segment cesarean section. Investigations confirmed the diagnosis of Youssef's syndrome. Four patients who had 2 children each opted for hysterectomy. The remaining 3 patients had excision of the fistula with repair of uterus

and bladder. In this group, at 6 years follow-up, in spite of conceiving, 2 patients aborted with no further pregnancy reported[13]. In our case, vesicouterine fistula developed following vesicovaginal fistula repair. During fistula repair the cervix was anastomosed with the posterior wall of the bladder, so that the external os was inside the bladder lumen. So, she had no menstrual bleeding per vagina rather she passed blood periodically with urine for 4-5 days every month. She also had the feeling of menstruation at that time. Normal anatomy was restored after exploration and repair. Patient is now menstruating per vagina and there is no urinary leak. In world literature there has been no such report of vesicouterine fistula following vesicovaginal fistula repair.

Conclusion:

Vesicouterine fistula is an uncommon condition. Urologist and gynaecologist should have high index of suspicion when a patiant presents with cyclical haematuria.

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