

TRANSPERITONEAL REPAIR OF VESICO-VAGINAL FISTULA

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SUMMARY

VVF were repaired transperitoneally in 16 cases with 100% success at first attempt. Fistulae repaired were supratrighonal: eight, involving trigone: eight, and were located high in the vagina. Careful selection of the patient and wide mobilization of the bladder and the vagina with multilayered closure had produced the most encouraging result. It is a reliable and reasonably simple procedure.

INTRODUCTION

Many vaginal and abdominal approaches have been described to solve a serious problem of the suffering humanity. Successful repair would much depend upon the selection of an ideal technique apart from major considerations like - site, size, multiplicity, state of the surrounding tissue and familiarity of the surgeon to a particular technique. Although gynecologists favour a transvaginal approach, transabdominal route enjoys distinct advantage in high, complex, recurrent fistulae or where there is Vaginal Scarring (O'Connor, 1975).

During last six years sixteen patients who had high or complex VVF have been treated by transperitoneal approach. The technique used and the results achieved are the subject of this report.

MATERIAL AND METHOD

16 patients of high and complex VVF who have been managed by transperitoneal approach between September 1988 to September 1994 in K.R. Hospital, G.R. Medical College, Gwalior. Two cases of giant fistula who were managed by urinary diversion have been excluded. Age ranged from 18 to 40 years. The symptoms in all cases was continuous leakage of urine pervaginum, without any interval of dry-

ness following abdominal hysterectomy for benign conditions in 4, Prolonged labour and delivery of dead foetus in 8 and Caesarean section in 4 cases.

Diagnosis was confirmed by vaginal examination with the help of speculum especially in knee chest position. Preoperative workup included excretory urography and cystoscopic examination. The site, size number and its relation to ureteral orifices were recorded. Biopsy from the Fistulous tract was not taken since there was no suspicion of tuberculosis or malignancy in any of the cases.

Operative Technique :

Under spinal anesthesia the patient is placed in supine position.

The abdomen is opened through a lower midline incision skirting the umbilicus. The dome of the bladder is freed from its attachments and perivesical area is exposed.

Stay sutures applied to bladder. The bladder is opened in the midline over the peritoneal surface and extended a little anteriorly. The fistula and the ureteral orifices are inspected (ureteral catheterization was done in 2 cases only) and the incision is continued down the posterior wall till it reaches the fistulous rim. The same incision is carried circumferentially around the fistula. The two edges of the bladder wall are retracted, the bladder is separated completely off the vagina. The vaginal defect is closed in two layers transversely using inverting interrupted sutures of 3-0 polyglycolic acid (Vicryl) i.e. delayed absorbable suture. The bladder is closed in two layers with the same sutures. Suprapubic Malecot and urethral Foley catheter for continuous bladder drainage.

The urethral catheter is removed after 10 days and the Malecot after 14 days.

RESULTS

Out of 16 patients fistula was located above the trigone in 8, involving the trigone in 6 and in 2 cases the ureteral orifice (Right side in both cases) was trapped in the edge of the fistula. There was single fistula in 12 cases while it was two in 3 cases and three in one case. The size of fistula varied from 0.5 cm to 3 cms. A minimum period of three months was allowed to lapse between the injury and the repair. Interposition of pedicle graft was not found necessary in any of these cases as the vaginal and the vesical defects were closed without tension in the suture line. There was no significant complication.

DISCUSSION

In developing countries obstetric trauma is responsible for over 90% of VVF or its variant (Devi, 1965; Rao, 1975). In developed countries, the most common cause of VVF is gynecologic surgery, specifically hysterectomy. Other causes include urologic surgery, gastrointestinal surgery, trauma, and radiation therapy for pelvic malignancies.

Most of the fistulae are juxtraurethral (Lawson, 1978) and the initial repair is performed by Gynaecologic surgeon with the vaginal approach. The best operation for repair of VVF is first operation (O'Connor, 1980). The selected route of repair depends mostly on the surgeon's training and experience. When fistula is high and critically close to ureteral orifices, the choice is abdominal approach (Turner Warnick, 1986).

Transperitoneal method involves splitting the bladder in the sagittal plane into the fistula. This method originally invented by Trendelenburg and developed by Swift Jolly is preferred by most urologists (Lawrsson J. 1978).

The first attempt closure of VVF following transabdominal technique without interposition graft has been reported in 75 to 100% of cases (Turner Warwick, 1986; O'Connor, 1980).

Our present series although small is comparable to Western reports. However etiological factors were different in western developed countries. The classic opinion regarding timing of repair is to wait 3 to 6 months to allow the surgical inflammatory reaction to subside.

In layered closure, the waiting period is important and it varies from 1 month in simple traumatic and operative injuries to 6 to 12 months in cases of radiational fistula. When success of procedure is dependent upon interposition of graft the

time of operation is relatively less critical after acute inflammatory event has resolved (Turner Warwick, 1986).

The key to success of the operative procedure are : careful identification of the bladder, the fistula, the vaginal wall; adequate dissection as far as possible to free the posterior bladder wall from vagina allowing closure of vagina and bladder in separate planes; and insuring continuous bladder drainage in the postoperative period.

All fistulas were closed without interposition of graft.

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