



BASIC PRINCIPLES OF VESICOVAGINAL FISTULA REPAIR

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ABSTRACT

Vesicovaginal fistula (VVF) is an abnormal communication between bladder and vagina, causing continuous urinary leakage from vagina.

- Globally > 2 million untreated cases of VVF. 50,000 to 100,00 new cases occur each year.
- >80% Cases of VVF are in low & middle income countries in mainly in Asia & Africa.
- VVF has impact on every aspect of life, medical (Vulvar irritation, bladder and vaginal stones, chronic pelvic pain, renal damage), psychosocial (social isolation, depression, anxiety) and reproductive health (infertility and apareuia).
- The etiological factors of VVF are obstructed labor, gynecological surgeries and genital tract malignancies.

OBJECTIVES

- To find the success rate of VVF repair by applying basic surgical principles.
- To find the incidence of urinary incontinence after successful closure of VVF.

METHODOLOGY

It was an observational study carried out at Isra Medical University Hospital Hyderabad, from 1st November-2011 to 31st December-2024.

During study period 1,955 patients with confirmed diagnosis of VVF were operated by applying same basic surgical principles such as examination under anesthesia and make a check list, proper exposure, wide mobilization of vaginal wall from under lying bladder, preservation of ureters, tension free closure of bladder and vagina and maintaining the width and length of urethra and proper postoperative care.

METHODOLOGY

The data was collected from hospital records and analyzed by SPSS version -26,ANOVA (One way) Test was applied. Main Outcome Measures: success rate of fistula repair, postoperative rate of stress and urge incontinence.

MAKE A CHECK LIST

Size, number and location fistulae, distance from external urethral meatus, classification, mobility of tissues, pubic arch<85° poor access, Vaginal depth<10cm, substantial tissue loss & previous operations

GOOD EXPOSURE



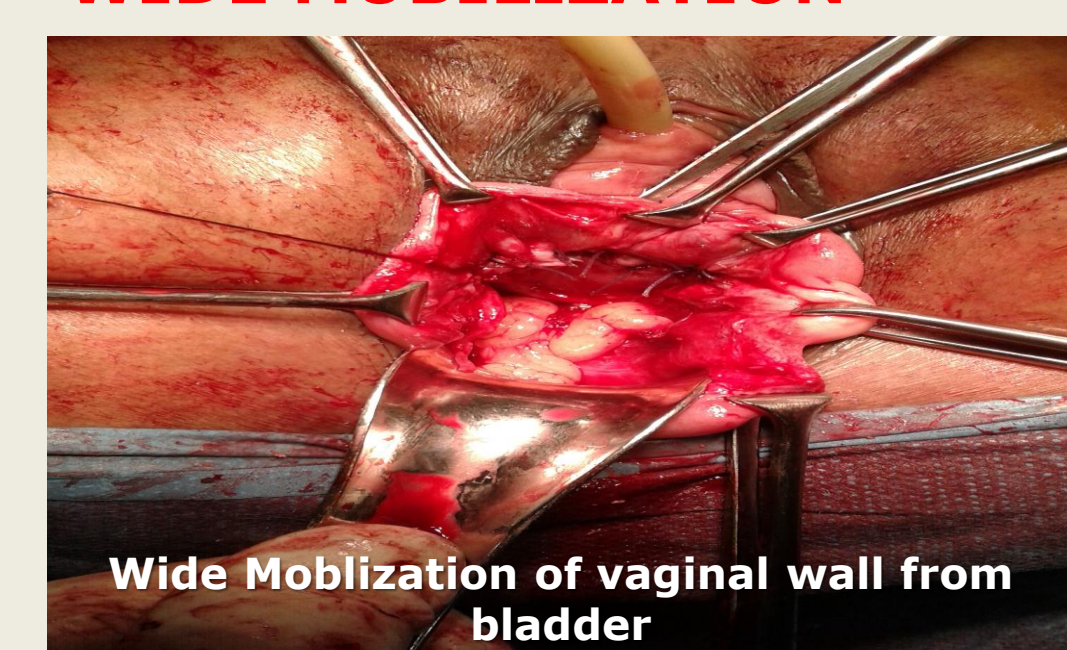
PRESERVE URETERS



INSERT URETERIC CATHETERS



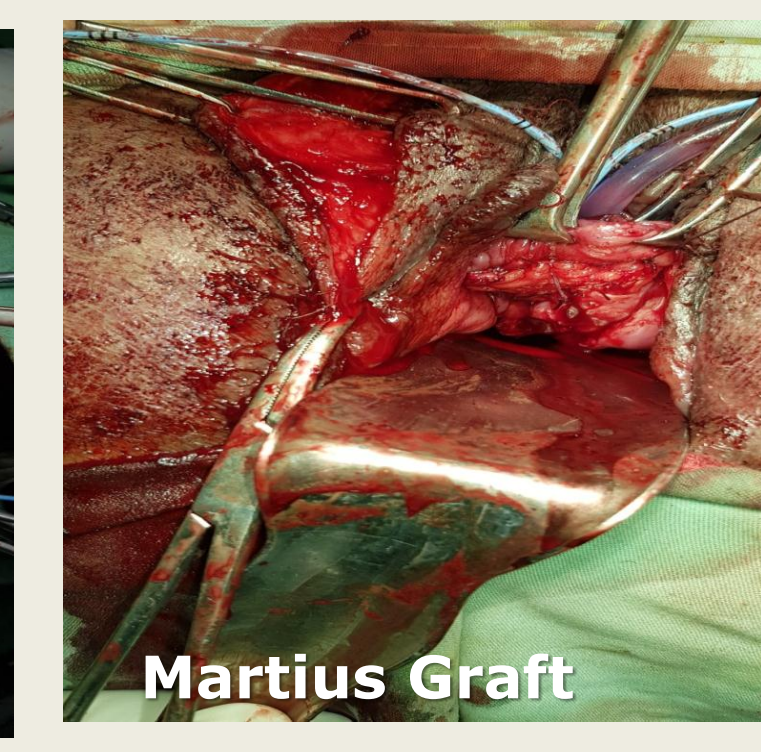
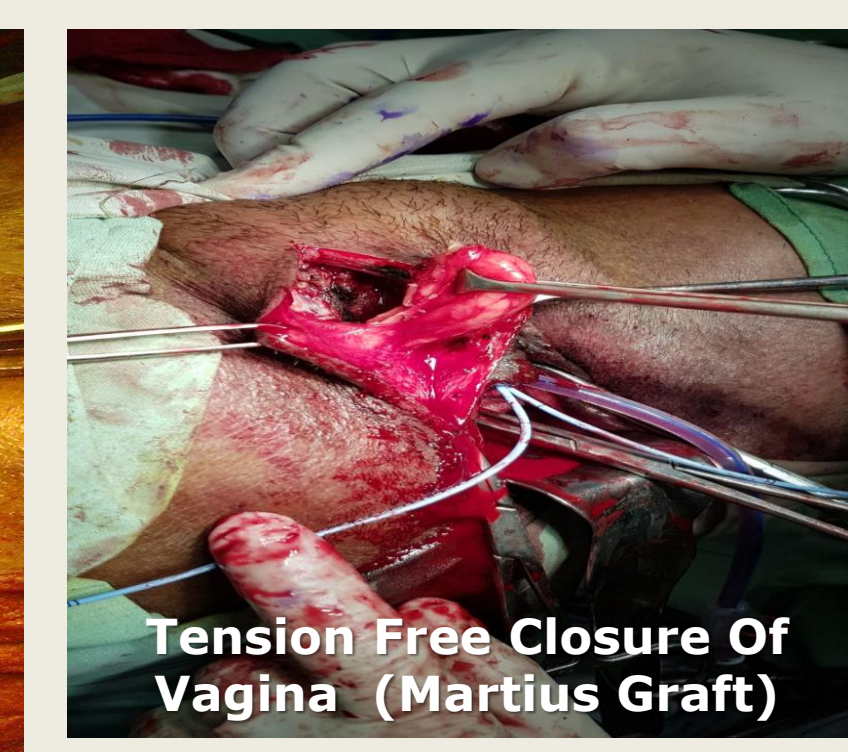
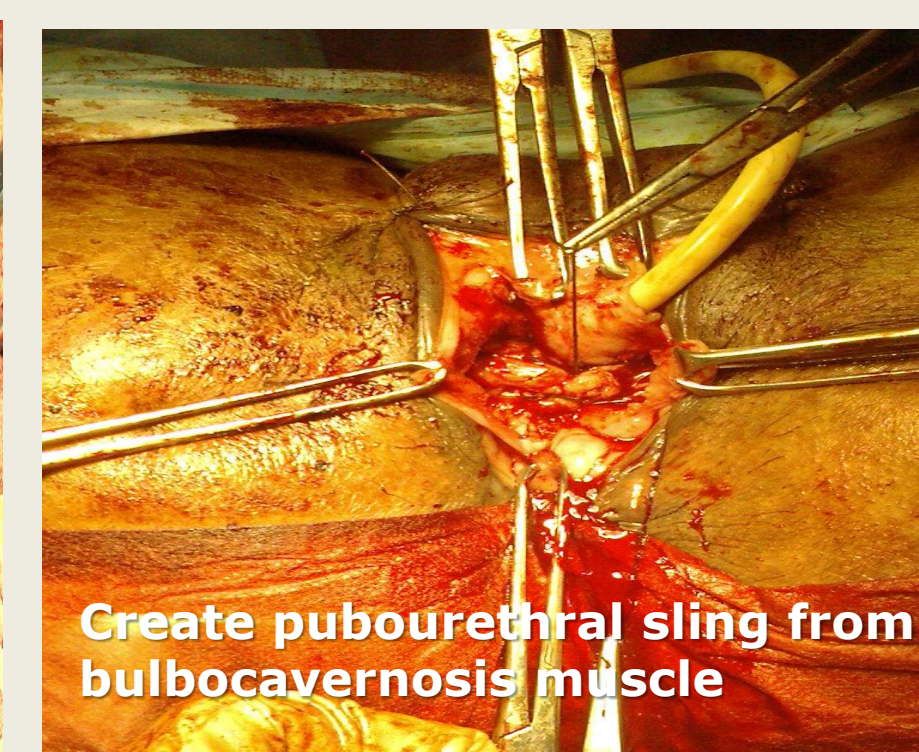
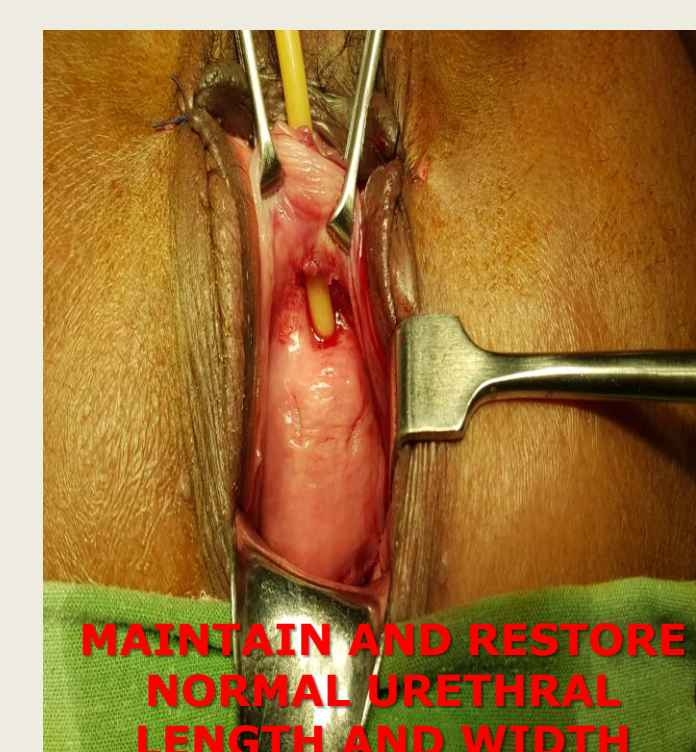
WIDE MOBILIZATION



TENSION FREE CLOSURE



Additional Procedures for Repair of Complex Fistula



RESULTS

The success rate of fistula closure was 1,877(96%) at first attempt and 1,915 (98%) at second attempt. There was no major morbidity, except urinary tract infection in 508 (26%) of patients. Stress urinary incontinence was observed in 254 (13%) patients and urge incontinence in 215 (11%) of patients at 6 weeks follow up visit.

DISCUSSION

All simple and most of complex fistulas can be repaired by vaginal route, by applying basic surgical principles such as proper positioning of the patient on operating table (1), Wide mobilization of vagina from bladder and layered closure of bladder muscle, skipping bladder mucosa (2-3), tension free closure of vaginal epithelium by inter position of Martius graft (3-4). For complex fistula to prevent stress urinary incontinence utilization pulvocaverosis muscle as sling(5)

CONCLUSION

Repair of simple fistula can be done by observing basic surgical principles, while repairing a complex vesico-vaginal is a challenging endeavor but better surgical outcomes can be achieved by utilizing different surgical techniques in addition to basic surgical principles

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