



Dr. Why I am still not Dry [Urodynamic changes after successful VVF repair]

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Introduction

- Surgical repair, through vaginal or abdominal route, is the only definitive treatment of VVF¹.
- It has a success rates of as high as 85% to 95%¹.
- Unfortunately, even after successful closure of VVF normal bladder function is not regained in a significant number of patients.
- Different studies show that after successful surgical repair of VVF.²
 - Stress urinary incontinence persists in 33% to 55% cases.
 - Around 50% cases were shown to have persistent detrusor instability.
 - Other important reported complications after successful VVF repair include vaginal stenosis with dyspareunia, persistent amenorrhea and reduced bladder capacity.
 - We designed this study to determine the functional outcome of the urinary bladder after successful surgical closure of VVF.

Methods

- It was a prospective study carried out in Urology department of Liaquat National Hospital Karachi from March 2016 to 2018.
- All the surgeries were performed by a single surgeon with a special interest and >15year experience in VVF surgeries.
- Bladder function of the included patients was assessed by standard urodynamic studies done 4 to 12 weeks after surgical repair.
- All those patients with VVF who underwent successful surgical repair of VVF (abdominal as well as vaginal) for the 1st time were included in the study
- Patients with the history of previous VVF repair, previous bladder surgery, bladder trauma and neurogenic bladder were excluded
- Data was collected regarding age of patients, Etiology of VVF, time between formation & fistula repair, bladder capacity after VVF repair, detrusor pressure after VVF repair, presence of stress incontinence and presence of urge incontinence.
- Causes of VVF, time between formation & repair of fistula, bladder capacity, detrusor pressure and any stress or urge incontinence were noted.
- All the data was analyzed by SPSS version 24.0

Results

- There was reduction in bladder capacity in all cases of successful VVF repair more severe in cases older than 6 month duration
- Around 24% of patient had stress leakage more significant in obstetric VVF.
- Detrusor instability with involuntary contractions was seen in around 50 % of cases

Table 1--- General characteristics

Total Number of Cases (N)	96
Mean Age (years)	32 (15-72)
Etiology	Obstetric-31(29.7%) Non-Obstetric-65(71.3%)
Mean Duration of VVF (Months)	26.95 (1-244)
Mean bladder capacity (ml)	273.64(110-450)

Table 2: Presence of reduced bladder capacity with respect to etiology & duration

Overall incidence of reduced bladder capacity	96 (100%)
Comparison of mean bladder capacity According to Etiology	Obs. VVF---232.27 ml Non Obs. VVF--- 290.05ml
Comparison of mean bladder capacity According to duration	<6months--- 340.42ml >6months--- 208.30ml

Table 3: Presence of Detrusor overactivity with respect to etiology & duration

Overall incidence Number &% of patients	54 (56.2%)
Comparison of Detrusor overactivity According to Etiology	Obstetric --- 21(67%) Non- obstetric-- 18(27.6%)
Comparison Detrusor overactivity According to duration	<6month---14.28% >6monthd---50%

Table 4: Presence of stress incontinence with respect to etiology & duration

Overall incidence (number & % of patients)	24(25%)
Comparison of stress incontinence According to Etiology	11(35%) 13(20%)
Comparison of stress incontinence According to duration	<6month---17.28% >6monthd---43.18%

Conclusion

Though VVF can be repaired in most of the cases, but consequences remains in forms of reduced capacity and stress and urge incontinence.

References

1. Doctor! Will I be dry? Factors determining recurrence after vesicovaginal fistula repair Atif Javed, Aziz Abdullah, et al JPMA 65: 954; 2015.
2. William G. The Adis Ababa Fistula Hospital: An holistic approach to management of patients with vesicovaginal fistula. Surgeon 2007; 5: 54-7.