

# SAFETY AND EFFECTIVENESS OF TRANSVAGINAL REPAIR FOR IATROGENIC GENITOURINARY FISTULAS

## Hypothesis / aims of study

This study aims to assess the long-term safety and effectiveness of transvaginal repair for iatrogenic genitourinary fistulas, specifically evaluating fistula closure, complications, and quality of life (QOL) over 6 and 12 months of follow-up.

## Study design, materials and methods

This prospective cohort study was conducted at LUMHS on 45 patients who underwent transvaginal repair for iatrogenic genitourinary fistulas. The primary outcomes were fistula closure and the incidence of complications, while the secondary outcome focused on quality of life (QOL) assessment using a standardized questionnaire. Recurrence was monitored over a 12-month follow-up period.

## Results

At 6 months, fistula closure was achieved in 92% of patients, with a recurrence rate of 4.4% (2 patients). The complication rate was 10%, including minor infections and delayed wound healing. QOL scores significantly improved, with 92% of patients reporting better sexual and urinary function. At 12 months, fistula closure remained at 90%, with no new recurrences and a continued improvement in patient-reported QOL.

## Concluding message

Transvaginal repair (TVR) is a safe and effective surgical option for the management of iatrogenic genitourinary fistulas (GUFs). The procedure achieved high fistula closure rates of 92% at 6 months and 90% at 12 months, with minimal recurrence (4.4% within 6 months) and low complication rates (10%), primarily involving minor infections and delayed wound healing. Additionally, significant improvements in quality of life were observed across urinary, sexual, and bowel function domains, with the majority of patients reporting substantial relief from preoperative symptoms

Table 1: Demographics and Baseline Characteristics of Study Participants

Characteristic	Total (n=45)	Fistula Closure (n=41)	Complications (n=4)	p-value
Age (Years)	37.4 ± 8.9	37.1 ± 9.2	41.1 ± 7.3	0.23
Female (%)	100%	100%	100%	-
Fistula Size (cm)	2.4 ± 1.2	2.3 ± 1.1	2.9 ± 1.4	0.14

Previous Pelvic Surgery (%)	100%	100%	100%	-
Type of Surgery Leading to Fistula	Hysterectomy (48%)	50%	50%	0.82
Location of Fistula (%)	vesicovaginal fistula (68%)	70%	60%	0.15
Duration of Fistula (Months)	6.2 ± 2.5	5.9 ± 2.1	7.8 ± 3.3	0.31

Table 4: Fistula Closure Rate and Recurrence at 6 and 12 Months

Timepoint	Fistula Closure (%)	Recurrence (%)	p-value
6 Months	92%	4.4%	<0.001
12 Months	90%	0%	<0.001

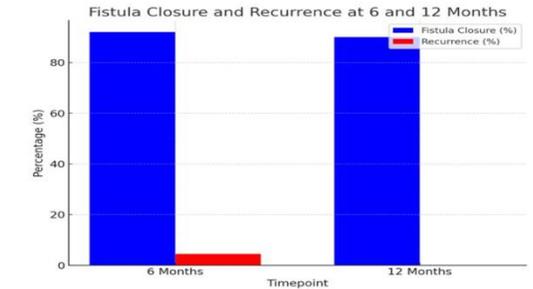


Table 5: Preoperative Quality of Life (QOL) Scores Across Multiple Domains

QOL Domain	Mean Preoperative Score (±SD)	Score Range	Number of Patients with Impaired Function (%)
Urinary Function	45 ± 15	30 - 60	75% (34 patients)
Sexual Function	40 ± 16	25 - 55	80% (36 patients)
Bowel Function	50 ± 12	35 - 65	60% (27 patients)

Psychological Well-being	42 ± 14	30 - 55	70% (31 patients)
General Well-being	47 ± 13	30 - 60	65% (29 patients)
Social Function	49 ± 11	40 - 58	68% (30 patients)

Author's : Samia Aijaz

Institution: Liaquat University Of Medical and Health sciences

Pakistan

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