

# CHANGING TRENDS IN THE MANAGEMENT OF GENITOURINARY FISTULAE: FROM CONVENTIONAL TO ROBOT ASSISTED REPAIR

Authors  
Dr. Naresh Kumar Valecha

Affiliations  
Jinnah Postgraduate Medical Center  
Karach, Pakistan

## 01 Introduction

Genitourinary fistulae (GUF), one of the most devastating complications in the urogynaecology settings, includes vesicovaginal fistulae (VVF), vesicouterine fistulae (VUF), ureterovaginal fistulae (UVF) and Urethrovaginal fistulae; VVF being the most common type. GUF continue to pose significant surgical and psychosocial challenges for affected women, especially in developing countries. Historically, Transabdominal and Transvaginal repairs were the mainstay of treatment, often delivering satisfactory results in experienced hands. However, with the advancement in minimally invasive technologies, the role of robot-assisted laparoscopic repair has emerged a powerful alternative, offering precision, reduced morbidity and better patient reported outcomes. Here we share our 5-year-experience in the management of genitourinary fistulae with changes in the emerging technologies.

## 02 Objective

In this study we discuss the changing trends in the surgical management of Genitourinary fistulae repair from conventional to robot assisted laparoscopic repair, comparing their outcomes and further need in the improvement in surgical techniques.

## 03 Methodology

We retrospectively reviewed 30 cases of genitourinary fistulae managed at the Department of Urology, Jinnah Postgraduate Medical Centre, between 2020-2025.

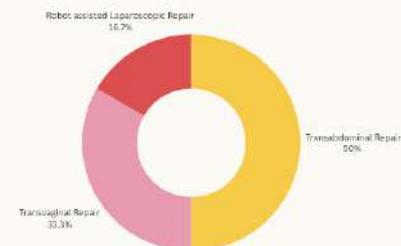
### Surgical Approaches

- Transabdominal repair - 15 cases
- Transvaginal repair - 10 cases
- Robot-assisted laparoscopic repair - 5 cases

## 04 Results

In our study, we observed that Transabdominal repair, although effective, was associated with higher morbidity, longer hospital stay, increase chances of wound infection and delayed return to normal life. While Transvaginal and Robot assisted repair had fewer complications, with quick recovery time. Robot assisted laparoscopic repair, being the minimal invasive technology had decrease hospital stay and minimal morbidity.

## 05 Analysis



## 06 Conclusion

### Our 5-Year Experience (2020-2025)

While all three approaches—transabdominal, transvaginal, and robot-assisted—remain valid, robot-assisted repair has shown the most favorable outcomes. It is associated with minimal morbidity, shorter hospital stay, fewer wound complications, and improved quality of life. The superior 3D magnified visualization and enhanced dexterity of the robotic platform allow for precise dissection and suturing, which is particularly beneficial in complex and recurrent cases. Transvaginal repair also provides advantages over the transabdominal approach, offering reduced morbidity, a lower risk of wound infection, and earlier return to normal daily activities.

