OCTOBER-DECEMBER 2012

MEDICAL CHANNEL

Original Article

OUTCOME OF SURGICAL REPAIR OF RECTO-VAGINAL FISTULA

1. **AISHA SHAIKH**
2. **SAIRA FATIMA SHAIKH**
3. **RAJIB ALI DEENARI**

1. ***Consultant in Surgery***
   Surgical Unit-II
   CMC Hospital Larkana Sindh Pakistan.
   Email: aashys@hotmail.com
2. ***Consultant in Surgery***
   Surgical Unit-II
   CMC Hospital Larkana Sindh Pakistan.
   Email.
   sairafatimashaikh@yahoo.com
3. ***Associate Professor***
   Surgical Unit-II
   SMBB Medical University @ CMC, Sindh Pakistan.
   Email: dr.rajibali@yahoo.com

CORRESPONDENCE
Dr. Saira Fatima Shaikh
MRCS, FCPS
Consultant in Surgery
Surgical Unit-II
CMC Hospital Larkana Sindh Pakistan.
Email.
sairafatimashaikh@yahoo.com
Cell: +92 3333952868

ABSTRACT:

Objective: The purpose of conducting this study was to determine the outcome of surgical repair of recto-vaginal fistula.
Methodology: This study prospective observational study was conducted at Surgical Unit-II of the Chandka Medical College Hospital Larkana over the period of 5 years. All patients were randomly selected, irrespective of the cause of the fistula. All patients underwent fistula repair transvaginally.
Results: total 58 patients with the mean age 31.5 years (SD +/- 10.371) were included. Most of the patients had RVF secondary to the obstetric trauma (i.e. 40: 68.96%). All fistulae were repaired transvaginally, under cover of a diverting stoma. Successful repair was achieved in 52 (89.65%) patients.
Conclusion: we concluded that promising results in terms of success occur in RVF repair. Small and medium size fistulae do better than large size fistulae.

Key words: Recto-vaginal fistula, obstructed labour, treatment.

INTRODUCTION

Rectovaginal fistula is a dreadful condition. In Western society, these are mostly caused by Inflammatory Bowel Disease (IBD), radiotherapy, and / or surgery. However in the developing countries like our's, obstetric complications like obstructed labour is the leading cause.

Whatever the cause of these fistulae, the management is difficult and the results of the surgical interventions are un-predictable and sometimes very disappointing.

Many factors are the predictors for the successful surgical outcome e.g size and site of fistula, etiology of fistula, age of fistula, level of vaginal scarring, previous surgical intervention, involvement of sphincter mechanism, associated fistula like vesico-vaginal fistula and patient's overall nutritional and medical status. The rate of success also varies from center to center and expertise of surgeon and post-operative nursing care.[1-2]

The purpose of conducting this study was to determine the outcome of surgical repair of recto-vaginal fistula who presented to our ward.

MATERIAL AND MATHOD

This study was conducted at the surgical unit II of SMBB Medical University, Larkana. Our ward is a part of tertiary care hospital, where patients are referred from the upper Sindh Balauchistan and from few districts of the Punjab. We manage such patients of fistulae which are referred from these areas, as well as the obstetric department of our university hospital, local medical centers as well as from oncological centers (for the RVF related to malignancy.)

STUDY DESIGN: This was a prospective, observational study conducted on all the patients who presented to us between January 2007 to December 2011. A total of 29 patients ere recruited for the study. All patients were randomly selected, irrespective of

the cause of fistula or previous effort/ intervention to close it. Data was collected on a pre-designed proforma which included patient's demographic data, cause of fistula, previous surgical intervention to repair the fistula, size of fistula, surgical procedure performed and outcome in terms of negative soluble contrast enema on discharge and 3 months latter when the diverting stoma was reversed.

In all patients, apart from general lab tests, specifically soluble contrast enema and where necessary a colonoscopy was also performed to see the exact size, size and extent of the RVF. On the basis of size, fistulae were divided into small (< 1cm), medium (1-3 cm) and enlarge (> 3cm). The patient was nutritionally built and a defunctioning colostomy was performed, which was reversed after 03 months after the successful fistula repair. In failures, the stoma was left in place. All fistulae were repaired transvaginally.

RESULT

Total 58 patients with RVF were included. Mean age of the patients was 31.5 years (SD +/- 10.371). 40 patients had fistula due to obstetric cause, in 8 it was traumatic, 10 secondary to the irradiation. 14 patients had previous surgical intervention done which had failed. 6 patients had small fistula, 34 had medium and 18 had large fistula.

In all fistula cases and those which were repaired without a defunctioning stoma, a de-functioning sigmoid colostomy was performed (n=44+4). Patients underwent fistula repair once the area was free of soiling.

In 52 patients successful fistula repair was achieved and 3 months after successful repair, the sigmoid colostomy was reversed. In 6 patients failure occurred.

The result are summarized below:

SIZE OF FISTULA	
Small	06 (10.34%)
Medium	34 (58.62%)
Large	18 (31.03%)

PREVIOUS SURGICAL INTERVENTION	
Yes	14 (24.13%)
No	44 (75.86%)

CAUSE OF FISTULA	
Obstetric trauma	40 (68.96%)
Traumatic	08 (13.79%)
Post-radiation	10 (17.24%)

OUT COME OF REPAIR

Successful 52 (89.65%)

Un-successful 06 (10.34%)
- Previously operated → 04
- Post radiotherapy → 02

↓

Size
- Medium 02
- Large 04

DISCUSSION:

Rectovaginal fistula is a very dreadful condition. In our country, obstetric trauma is still a leading cause, where the patients get delivered at home by the traditional birth attendants (TBA's). At other times, traumatic injuries at perineum, IBDs and pelvic radiotherapy are the other causes. What ever the cause / mechanism, it is associated with social disgrace and severe mental trauma for the patient and the family.[1-2]

We included 58 patients in our study, who were referred for the repair of RVF. The mean age of patients was 31.5 years (SD + 10.371 years). Out of 58 patients,14 had previous surgery done for RVF repair. We had successful repair in 52 patients and failure occurred in 6 patients. Out of these 6,4 were previously operated with lot of vaginal scaring and large size. Two patients had history of previous radiotherapy.

Results of our study are comparable with the international studies available; the studies by Kayondo M et al and Tom J IP Reassan has reported much lower success rate i-e 77.9% & 90.7% respectively. This difference could be explained on many grounds: One that they conducted large scale studies so their failure rates are accordingly, other is that their study is 13 based on the African population, where many more factors are involved like: very late presentation of patients, nutritionally & mentally compromised population with poor facilities of patient education.[1-3] In those African ladies, cause of almost all fistulae is obstructed labour. Thaddeus S & Maine D had commented that in developing countries, this verse outcome of obstructed labour was influenced by 03 delays: 1) delays in deciding to seek care, 2) delays in arrival at Health care facility 3) delay in provision of adequate care.[2]

As for as the surgical technique does matter, for the successful surgical outcome of the fistula, many more factors inter-play more profoundly like size of RVF, degree of vaginal scaring, previous failed attempt, irradiation and faecal soiling. In a report by Konder and Colleagues 100 patients with fistula of varied causes underwent repair. 16% of their patients recurred.[4] In a retrospective analysis by Ozuner et al, 52 patients underwent RVF repair. They concluded that statistically significant recurrence rate in the previously unsuccessful repair patients[5]

To avoid faecal soiling we practice formation of a de-functioning stoma as a routine. This brings also a feeling of well being in a patient who is pouring feces per-vaginum. Through not much practiced by Western surgeons, success rates are really affected by our this practice as temporary stoma is well tolerated and affordable over an unsuccessful surgical outcome. Bauer and his colleagues reported success in 12 out of 13 patients. All had a diverting stoma.[8] We repaired all fistulae transvaginally. Literature shows encouraging results. Rehman et al described 100% success rate in his 39 patients[7]

We managed all lower RVFs which were easily manageable transvaginally. Approach of managing the high fistulae is transabdominal. Though these fistulae have inherently low success rates, still the results are etiology-based and variable at different centers. Cook and Wellsted reported a 93% success rate in 55 patients.[9] Nowacki reported functionally good results though much lower (78.26%) in radiation induced RVFs.[10] Laparoscopic approaches has been reported only by a few case reports. Kumran et al reported on a successful repair of a high RVF.[11] However, studies with larger number of cases is needed.

Study limitations: we had a limited study population. We plan to

extend our study over next couple of years and compare our own results in future with previous once.

CONCLUSION

We conclude that the RVF repair has promising results in terms of success. The small and medium size fistulae do better than those with more vaginal scarring due to previous surgery or a bigger size and those which are post-radiations.

REFERENCE

1. Raassen TJIP, Verdasdonk EGG, Vierhout ME. Prospective results after first-time surgery for obstetric fistulas in East African women. Int Urogynecol J 2008;19:73-9.
2. Thaddeus S, Maine D. Too far to walk: maternal mortality in context. Soc Sci Med 1994; 38(8): 1091-1110.
3. Kayondo M. Predictors and outcome of surgical repair of obstetric at a regional referral hospital Mbarara, western Uganda. BMC Urology 2011;11:23.
4. Kondar IJ, Mazor A, Shemesh EI, Fry RD, Fleshman JW, Bimbaum EH. Endorectal advancement flap repair of rectovaginal and other complicated anorectal fistulas. Surgery 1993;114:682-9.
5. Ozuner G, Hull TL, Cartmill J, Fazio VW. Long-term analysis of the use of transanal rectal advancement flaps for complicated anorectal / vaginal fistulas. Dis Colon Rectum 1996;39:10-14
6. Khanduja KS, Padmanabhan a, Kerner BA, Wise WE, Aguilar PS. Reconstruction of rectovaginal fistula with sphincter disruption by combining rectal mucosal advancement flap and anal sphincterotomy. Dis Colon Rectum 1999;42:1432-7
7. Rehman MS, Al-Suleiman SA, EI-Yahia AR, Rahman J. Surgical treatment of rectovaginal fistula of obstetric origin: a review of 15 years experience in a teaching hospital. J Obstet Gynaecol 2003;23:607-10.
8. Bauer JJ, Sher Me, Jaffin H, Present D, Gelerent I. Transvaginal approach for repair of rectovaginal fistulae complicating crohn's disease. Ann Surg 1991;213:151-8
9. Cooke SA, Wellsted MD. The radiation – damaged rectum: resection with coloanal anastomosis using the endoanal technique. World J Surg 1986;10:220-7
10. Nowacki MP. Ten years of experience with parks' coloanal sleeve anastomosis for the treatment of post-irradiation technique. World J Surg 1986;10:220-7
11. Kumaran SS, Palanivelu C, Kavslakat AJ, Parthasarathi R, Neelaythatchi M. Laparoscopic repair of high rectovaginal fistula: is it technique feasible? BMC Surg 2005;5:20.