Original Article

Determine the Outcomes of External Rectal Prolapse

Out Comes of External Rectal Prolapse

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ABSTRACT

Objective: To determine the outcomes in patients with external rectal prolapse.
Study Design: Observational study
Place and Duration of Study: This study was conducted at the Department of General Surgery, Bhatti International Teaching Hospital and Central Park Hospital, Lahore from 01-06-2016 to 30-11-2017.
Materials and Methods: Thirty patients above age of 12 years both males and females with complete rectal prolapse were included. Patients who were below the age of twelve years, recurrent prolapse, colorectal cancer, with medical issue like renal failure, acute disease of liver were excluded. Patients with lower gastrointestinal symptoms e.g. pain, something coming out from anus, bleeding per rectum and tenesmus were diagnosed on history basis and examination. Resection, Wells rectopexy and thieresch stitch was performed in patients
Results: There were 22 (73.33%) male patients and 8 (26.67%) female patients. Wells Rectopexy was done in 25 patients, thieresch stitch was applied in 2 patient and 3 patients had anterior resection. Post-operative complications such as pelvic abscess found in 2 (6.67%), constipation in 6 (20%) patients and wound infection in 2 (6.67%) patients. Recurrence found in 1 (3.33%). No mortality was recorded.
Conclusion: The Wells rectopexy was the safe and effective procedure with very low rate of complications.
Key Words: Wells rectopexy, Prolene mesh, Complete rectal prolapse, Anterior resection

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INTRODUCTION

Complete rectal prolapse is the protuberance of all rectal layers by the anal sphincters.[1] Treatment of rectal prolapse depends on the severity of the disorder. Degree of severity is categorized into complete full thickness, mucosal and occult prolapse.[2-3] The most common clinical presentation of rectal prolapse is protrusion. Severe constipation, incomplete evacuation, bleeding, pain and incontinence are other major symptoms of this disorder.[4] In prolapse patients, fecal incontinence and constipation are reported in 75% and 30 to 50%.[5] Among the main reasons of rectal prolapse are history of obstetric trauma and previous anorectal surgery. Rectal prolapse is found in both the pediatric and adult population. Elderly women between 50 to 70 years have high rate of incidence as compared to men.[6] Men with ages 20 to 35 years have high rate of incidence.[7]

Pelvic floor weakness, a usually related phenomenon, is possibly secondary to reoccurring incident of prolapse or strain over prolonged periods.[8]

Many surgical options have been describedfor the treatment of complete rectal prolapse. Most of the earlier techniques have been deserted by surgeons because of their unfavorable long term outcomes. Presently the operation in practice is to fix the rectum to sacrum. Rectopexy is the most prevalent procedure in United Kingdom, firstly described by Wells in 1959.[9] We desire to state the experience of complete rectal prolapse in 30 patients.

MATERIALS AND METHODS

This observational study was conducted at Department of General Surgery, Bhatti International Teaching Hospital and Central Park Hospital, Lahore from 01-06-2016 to 30-11-2017. Thirty patients of both genders were selected for this study. Patients with complete rectal prolapse and above the age of 12 years were included in this study. Patients who were below the age of twelve years, recurrent prolapse, colorectal cancer, with medical issues like renal failure, acute disease of liver were excluded from the study. The patients were admitted from outpatient and emergency department or in some cases referred from other primary and secondary centers. All 30 patients with lower gastrointestinal symptoms e.g. pain, something coming out from anus, bleeding per rectum and tenesmus were

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diagnosed on basis of history and examination including proctosigmoidoscopy. Necessary related laboratory analysis was done. Patients were kept on clear fluids a day before the surgery and mechanical bowel preparation was done. We performed anterior resection, thieresch stitch and wells abdominal rectopexy. Prolene mesh was used where required. Postoperatively intravenous antibiotic and analgesic were given for five days and then shifted to oral medication. The patients were monitored carefully and judicious follow up was done after discharge for the development of complications. All the data was analyzed using SPSS 20.

RESULTS

Out of 30 patients,22 (73.33%) were male patients and 8 (26.67%) were females (Table 1). Five (16.67%) patients were ages <20 years, 13 (43.33%) patients were ages between 21 to 30. years, 6 (20%) patients were ages 31 to 40 years, 3 (10%) patients had ages 41 to 50 years and 3 (10%) had ages above 50 years (Table 2). Five (16.67%) patients had symptoms duration <2 years, 7 (23.33%) had duration >4 years and 18 (60%) had duration 2 to 4 years (Table 3). Wells rectopexy was done in 25 (83.33%) patients, anterior resection in 3 (10%) patients and thieresch stitch was applied in 2 (6.67%)patients (Table 4).Post-operative complication such as pelvic abscess found in 2 (6.67%), constipation in 6 (20%) patients and wound infection in 2 (6.67%) patients. Recurrence found in 1 (3.33%). No mortality was recorded (Table 5).

Table No.1: Frequency of genders (n=30)

Gender	No.	%
Female	8	26.67%
Male	22	73.33%

Table No.2: Frequency of age

Age(years)	No.	%
≤20	5	16.66
21 to 30	13	43.33
31 to 40	6	20.0
41 to 50	3	10.0
>50	3	10.0

Table No.3: Frequency of duration of symptoms

Duration of symptoms (years)	No.	%
>4	7	23.33
2 – 4	18	60
<2	5	16.67

Table No.4: Frequency of repair type

Repair type	No.	%
Wells Posterior rectopexy	25	83.33
Anterior resection	3	10
Thieresch Stitch	2	6.67

Table No.5: Post-operative complications

Complication	No.	%
Constipation	6	20
Wound Infection	2	6.67
Pelvic Abscess	2	6.67
Recurrence	1	3.33

DISCUSSION

There is no ideal and standard procedure to treat complete rectal prolapse. One unanimous opinion that we have managed to grasp is that abdominal procedures are linked with a low reappearance rate than perineal one which was also demonstrated by Habr-Gama et al[10] in their study. Abdominal procedures are linked with high morbidity and preferred for young patients with no comorbidities as stated by Madoff[11] and Kim et al.[12] On the other hand, perineal procedures are linked with low morbidity but have high reappearance rate and therefore, should be considered in elderly patients with comorbidities. Abdominal rectopexy is the most favored procedure by many surgeons due to low morbidity and recurrence as we also prove in this study.

Though literature states that prolapse is a predominantly female disease in our study as compared to 26.67% female patients, 73.33% were male patients, which may be clarified on the basis of our male dominating society and also failure to seek medical advice by female patients. Huber et al[13]and Boutsis et al[14] also prove the male dominance in their studies.

Regarding the presentation no difference was noted between both genders and something coming out of the anus wasthe chief complaintin our series. Only in 6.7% patients peroperative bleeding was noticed which was because of sutures placement in presacral fascia resulting in injury to veins. By manual pressure & packing the bleeding was secured successfully. Another complication noted peroperatively was difficulty in placement of meshes which was probably due to diverse anatomy as Magruder et al[15] documented in his study.

Constipation is a major postoperative drawback of abdominal rectopexy. A high incidence of postoperative constipation 50% is reported by previous studies and also documented by Shamim[16] and Gomes et al.[17] Post-operative constipation occurred in 6 (20%) patients in our study, which was successfully treated with enriched fiber diet and use of bulk forming agents. Adequate outcome regarding postoperative constipation can be explained by the fact that we preserved the lateral rectal ligaments and nervi erigentes in our study. The sensitivity of rectum was thus not impaired in patients after operation as documented by Portier et al.[18] We observed that it is significant to spare lateral ligaments.

In the present study, wound infection was found in 6.7% patients and pelvic abscess in 6.7% patients. These patients were treated successfully with antibiotics but their hospital stay got prolonged. There was one week median hospital stay during our study. At one

week total 90% patients were discharged while 10% patients were discharged on seventeenth postoperative day. In our study, recurrence was observed in only one patient at 4 months follow up who had been treated with perineal technique. This patient was later reoperated and underwent Wells rectopexy..

CONCLUSION

Technically feasible procedure is Wells abdominal rectopexy with nil rate of reappearance, improved continence and shorter hospital stay in most patients. Continence grade in patients significantly increase and constipation is treated successfully with enriched fiber diet and use of bulk forming agents..

Author's Contribution:

Concept & Design of Study:	Muhammad Aqil Razzaq
Drafting:	Muhammad Tanvir Iqbal
Data Analysis:	Amna Shahab
Revisiting Critically:	Muhammad Aqil Razzaq Muhammad Tanvir Iqbal
Final Approval of version:	Muhammad Aqil Razzaq

Conflict of Interest: The study has no conflict of interest to declare by any author.

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