ORIGINAL ARTICLE

Outcome of Complete Rectal Prolapse

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ABSTRACT

Objective: To evaluate the outcome of patients with complete rectal prolapse.
Study design: Case series study
Place and duration of study: This study was conducted from Jan 1997- Dec 2007 in the surgical departments of Mayo Hospital Lahore and Sir Ganga Ram hospital, Lahore
Patients and methods: A total of 24 patients were studied. Both male and female patients above 12 years of age with complete rectal prolapse were included in the study. All the patients with lower gastrointestinal symptoms i.e. bleeding per rectum, tenesmus, pain and something coming out of anus were scrutinized on the basis of history and examination. We offered Wells abdominal rectopexy, anterior resection and thieresch stitch to these patients. Patients were followed up to record any complications and recurrence.
Results: A total of 24 patients were included in our study. Eighteen (75%) were male and six were females (25%). All the patients (24) had the complaint of something coming out of anus and discomfort in the perineum. The duration of symptoms in 3 patients was less than 2 years, in 15 patients between 2-4 years, and in 6 patients it was more than 4 years. In 21 patients Wells rectopexy was done, 2 patients had anterior resection and in one patient Theiresh stitch was applied. The types of materials used were ivolone sponge (3 patients) merslene mesh (5 patients) and prolene mesh (13 patients). The postoperative complications included pelvic abscess, wound infection (2 patients) and constipation (4 patients).There was no immediate post-operative mortality.
Conclusion: In conclusion, Wells abdominal rectopexy is a technically feasible method with nil recurrence rate, improved continence and short hospital stay in the majority of our patients.
Key words: Complete rectal prolapse, Wells abdominal rectopexy, prolene mesh

INTRODUCTION

The principle abnormality in prolapse has been shown by Broden and Snellman (1968) using cineradiography to be an intussusception of the rectum which begins initially above the peritoneal reflection[1]. Weakness of the pelvic floor, a commonly associated phenomenon, is probably secondary to repeated episodes of prolapse or straining over long periods of time.

Numerous operations have been described to treat complete rectal prolapse. Dissatisfaction with the long-term results of the majority of earlier procedures has led to their abandonment by most surgeons. The operations currently in vogue are the treatment of by fixing the rectum to either the sacrum or the symphysis pubis. The most popular procedure in the United Kingdom is rectopexy, first described by Wells (1959)[2]. We wish to report our experience of complete rectal prolapse in 24 patients.

PATIENTS AND METHODS

This study was conducted from Jan 1997- Dec 2007 in the surgical departments of Mayo Hospital Lahore and Sir Ganga Ram hospital, Lahore. A total of 24 patients were included. Both male and female patients above 12 years of age with complete rectal prolapse were included in the study. Patients below 12 years, recurrent prolapse, associated colorectal pathology (i.e. colorectal cancer), having medical problems like chronic liver disease, renal failure etc. were excluded from the study.

All the patients with lower gastrointestinal symptoms i.e. bleeding per rectum, tenesmus, pain and some thing coming out of anus were scrutinized on the basis of history and examination. These patients were admitted through out patients department or were referred from peripheral, primary and secondary care centers. The diagnosis of complete rectal prolapse was made by rectal examination including PR and proctoscopy. Relevant laboratory investigations were done in King Edward Medical University, Mayo Hospital and Ganga Ram hospital. Preoperative preparation of the patient includes mechanical bowel preparation & both oral & parenteral antibiotics. We offered Wells abdominal rectopexy, anterior resection and thieresch stitch to these patients

Postoperatively the patients were given intravenous antibiotics and analgesia for first two days and oral antibiotics and analgesia for next five days.

Evaluation was done on first two days daily (during these days patient was in ward for

postoperative period) and on the first follow up visit (one week after being discharged from the ward). There after follow up was done fortnightly to look for any complication or recurrence.

Table 1: Gender distribution

Sex	n=	%age
Male	18	75
Female	06	25

Table 2: Age distribution

Age group	n=	%age
12-20	04	16.6
21-30	11	45.9
31-40	05	20.8
41-50	02	08.3
51-60	01	04.2
>61	01	04.2

Table 3: Duration of symptoms

Duration of symptoms	n=	%age
<2 years	03	12.5
2-4 years	15	62.5
>4 years	06	25.0

Table 4: Type of repair

Type of repair	n=	%age
Well's posterior rectopexy	21	87.5
Anterior resection	02	08.3
Thieresh stitch	01	04.2

Table 5: Material used

Material used	n=	%age
Ivolone sponge	03	14.3
Merslene mesh	05	23.7
Prolene mesh	13	62.0

Table 6: Postoperative complications

Complications	n=	%age
Pelvic abscess	01	04.2
Wound infection	02	08.3
Constipation	04	16.7

RESULTS

A total of 24 patients were included in our study. Eighteen (75%) were male and six were females (25%) as shown in Table 1. Majority of patients (11) as shown in Table 2 were between 21-30 years of age. All the patients (24) had the complaint of something coming out of anus and discomfort in the perineum. The duration of symptoms are shown in Table 3. In 21 patients Wells rectopexy was done. As shown in table 4, remaining 2 patients had anterior resection and in one elderly patient Theiresh stitch was applied. The types of materials used for rectopexy were ivolone sponge (3 patients) merslene mesh (5 patients) and prolene mesh (13 patients) as shown in table 5. The postoperative complications noted were pelvic abscess (one patient), wound infection (2 patients) and constipation (4 patients) as shown in table no. 6.

DISCUSSION

There is no optimal or standard procedure for the treatment of complete rectal prolapse. One consensus that we have managed to reach after decades is that abdominal procedures are associated with a lower recurrence rate than the perineal one which is also proved by the study of Habr-Gama et al[3]. However Madoff[4] and Kim et al[5] states that abdominal procedures are associated with a higher morbidity and are preferred for younger patients with associated conditions. Perineal procedures on the other hand are associated with lower morbidity but have higher rate of recurrence as compared to the abdominal procedures and should thus be considered in older patients with multiple co-morbidities. Selective policy has probably improved outcome although there is no objective of selecting a particular type of operation as described by Brown et al[6]. For many surgeons abdominal rectopexy is the procedure of choice because of its low morbidity and recurrence rates as we have proved in our study.

In our study 75% of patients were male as compared to 25% female patients, which may be explained on the basis of our male dominated culture. Male dominance was also proved by the Scaglia et al[7], Huber et al[8], and Boutsis et al[9]. In our study female patients are slightly older than their male counterparts this is also documented in many other studies like Keighley et al[10].

No difference was found between the sexes with their presentation like mass coming out of the anus, discomfort in the perineal region, bleeding per rectum etc.

All the patients in our series presented with the principal complaint of something coming out of anus. Patients with prolapse are shown to have disordered emptying and thus constipation is also a significant problem which may be more common pre-operatively than generally realized as described by Scaglia et al[7].

Peroperatively bleeding was observed only in 6.7% patients, which was due to placement of sutures in the pre-sacral fascia and consequent injury to the veins. Bleeding was successfully secured without any difficulty by manual pressure and packing. Bleeding can occur due to injury to iliac and gonadal vessels but it was not observed in our series. Another peroperative complication noted was difficulty in mesh placement which was probably due to varied anatomy as was also witnessed by Vongsangnak et al[11] in their study.

Postoperatively a major drawback of abdominal rectopexy is constipation. Previous studies have reported an increased incidence of post operative constipation upto 50% as studied by Shamim et al[12] and Bachoo et al[13]. Four (16.7%) of our patients developed constipation post operatively, which was treated successfully with a fiber enriched diet and intermittent use of bulk forming agents. The satisfactory results regarding postoperative constipation in our study can be explained by the fact that we did not dissect the lateral ligaments and the nervi erigentes. The rectal sensitivity, which has been proven to be impaired after lateral ligament division was thus not observed significantly in our patients after the operation as studied by the Schultz et al[14]. We feel that it is important to spare the lateral ligaments.

Another postoperative problem in early cases of our study was wound infection 6.7%. The incidence was reduced by intravenous antibiotics prophylaxis and copious wound irrigation before closure.

In our study median hospital stay was 1 week. 87.5% patients were discharged at one week. Only 12.5% patients were discharged late (up to 17th postoperative day) and the reason for late discharge was wound infection and pelvic abscess which were successfully treated. Incontinence and recurrence were not observed in our study period with an average follow up of three and half years. Which was also observed by Brown et al[15] in their study.

CONCLUSION

In conclusion, Wells abdominal rectopexy is a technically feasible method with nil recurrence rate, improved continence and short hospital stay in majority of our patients. The associated significant increase in continence grade in our patients with mild constipation was successfully treated with fiber enriched diet and intermittent use of bulk forming agents.

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