

**ORIGINAL RESEARCH ARTICLE****A RETROSPECTIVE STUDY OF RECTAL PROLAPSE IN CHITWAN MEDICAL COLLEGE****Abhishek Bhattarai,^{1*} Kishor Kumar Tamrakar,¹ Pragya Devakota,² Keshar Bahadur Shah,¹ Bimochan Piya¹**¹Department of Surgery, Chitwan Medical College, Bharatpur, Chitwan, Nepal.²Department of Pharmacology, Tribhuvan University Teaching Hospital, Kathmandu, Nepal.**Correspondence to: Dr. Abhishek Bhattarai, Department of Surgery, Chitwan Medical College, Bharatpur, Chitwan, Nepal.**Email: abhishekbhattarai@gmail.com***ABSTRACT**

Rectal prolapse (RP) is an unusual anorectal disease affecting both children and adults. Complete rectal prolapse represents full thickness protrusion of the rectum through the anal verge. Incarceration and strangulation are the most unusual, but dreaded complications of rectal prolapse that requires a surgical emergency. Management of such complications is still controversial. Some prefer conservative management by application of sugar while other preferred operative intervention. When prolapse is not reducible and a sign of ischemia is present the operative intervention is inevitable. The choice of procedure also varies. The Altemeierperineal rectosigmoidectomy remains the best treatment of such emergency conditions.

Keywords: Altemeier's procedure, Perineal recto sigmoidectomy, Rectal prolapse

INTRODUCTION

Full thickness or complete rectal prolapse is a complete protrusion of the entire wall of the rectum with or without sigmoid colon through the anal verge.¹ Its course is gradual and progressive over a period of time. Initially, prolapse is reducible spontaneously, later manual reduction is needed and is finally it becomes irreducible and complicated by incarceration and strangulation.

Rectal prolapse is generally more common in elderly women,² although it may occur at any age and in both sexes. Most external rectal prolapse cases can be treated successfully with a surgical procedure.

Here we report our experience in the management of the irreducible/strangled rectal prolapse treated with the Altemeier technique in four patients while anterior resection was done in one case.

METHODS

This is the retrospective analysis of data of rectal prolapse over a period of two years at Chitwan

Medical College teaching hospital from March 2015 to February 2017. Patients who had an emergency presentation due to irreducible/strangled rectal prolapse were reviewed. Initial manual reduction was attempted in 2 cases under injectable analgesia, another 2 cases were presented with the sign of ischemia at the time of presentation. While the last case was presented with polyp as the lead point which base could not be palpated during digital rectal examination suggestive of the long pedunculated polyp. All the patients were operated under general anesthesia.

RESULT

Among five patients with rectal prolapse, four patients underwent an Altemeier's procedure. They also had the previous history of manual reduction, one of them had a history of constipation while the rest three of them had a normal bowel habit. Two of them had been taking antipsychotic medications. Anterior resection was done in one patient, who had a long pedunculate polyp coming through anal verge, after manual reduction.

Postoperative recovery was smooth in three patients. One patient develops transient incontinence, which recovers over a period of weeks, whereas other patients develop abdominal distension and per rectal bleeding after 7th postoperative days, which also improves with conservative means.

Case no.	Age /sex	Presentations	Finding	Manual reduction	Procedure	Complications	Outcome
1	45/M	Mass per rectum	Edema + Irreducible +	Yes	Altemeier's	None	Good
2	90/M	Mass per rectum Constipation	Edema + Ischemia + Ulcer +	No	Altemeier's	Abdominal distension, PR bleed	Good
3	69/F	Mass per rectum	Polyp + Irreducible +	No	Anterior resection	None	Good
4	65/F	Mass per rectum Lower abdominal pain	Edema + Irreducible +	yes	Altemeier's	None	Good
5	37/M	Mass per rectum	Edema+ Ischemia + Ulcer +	No	Altemeier's	Transient incontinence	Good

DISCUSSION

Rectal prolapse is an uncommon anorectal disorder whose treatment remains still controversial³. No technique has proved its superiority over the other.³ A wide spectrum of operative procedure is available for the management of rectal prolapse and can be done either abdominal or perineal approach.^{4,5} The aim of surgery is an anatomical repositioning of the bowel and improvement of function of anorectal complex.⁶ Complications and recurrence rate also varies with the surgical approach. Abdominal surgeries have less recurrence but higher risk of impotence and infertility whereas Perineal approaches mainly Delorme's operation and Altemeier's has higher recurrence rate as compared to abdominal approach.^{6,7} Irreducibility/Incarceration is an uncommon complication and requires emergency management.⁵

As in the elective course, emergency management is also controversial for the management of complications.⁵ Only a few literatures are available for the management of such complications. These are mainly the case report study of different literatures.

Conservative management can also be done in case of emergency. The aim of conservative management is to reduce edema and allow the reduction of prolapse and safe elective surgery at a later date. This can be done by application of sugar, mannitol by injecting Hyaluronidase or by applying the elastic compression wrap.⁶

Surgery is more difficult in case of emergency because of bowel edema and considered as a last resort if every measure fails. Surgical options are more challenging in case of incarceration, due to the increased risk of the anastomotic leak which is 25% in incarcerated prolapse as compared to elective recto sigmoidectomy which is 2-5%.^{6,8} The most widely practiced operation in the emergency setting is perineal proctor sigmoidectomy also called Altemeier's operation.^{5,9} Laparotomy is avoided and can be done under spinal anesthesia. In this study, we did perianal proctor sigmoidectomy in 4 patients.

The need of ileostomy for anastomotic leak also described in the literature.⁸ In our study, one patient developed abdominal distension and per rectal bleeding suggestive of anastomotic dehiscence which is managed conservatively.

Similarly, other patient had transient fecal incontinence during the early postoperative period which improved by its own within few days.

Literature reported abdominal rectopexy can be done in an emergency setting with a low recurrence rate⁵. However, only a few cases have been reported in the literature. We did anterior resection in one patient who had long pedunculated polyp coming through the anal verge.

CONCLUSION

Both abdominal and perianal approach is described in the literature for the management of rectal prolapse in an emergency situation. Procedure has to be tailored according to the condition of the patient, precipitating events and the surgical experience.

REFERENCES

1. Shin EJ. Surgical treatment of rectal prolapse. *Journal of the Korean Society of Coloproctology* 2011;27(1):5-12.
2. Sun C, Hull T, Ozuner G. Risk factors and clinical characteristics of rectal prolapse in young patients. *Journal of visceral surgery* 2014;151(6):425-9.
3. Ben Ameer H, Rejab H, Beyrouiti MI. Altemeier operation for recurred and strangulated rectal prolapse. *The Indian journal of surgery* 2013;75(Suppl 1):224-6.
4. Poylin V, Bensley R, Nagle D. Changing approaches to rectal prolapse repair in the elderly. *Gastroenterology report* 2013;1(3):198-202.
5. Seenivasagam T, Gerald H, Ghassan N, Vivek T, Bedi AS, Suneet S. Irreducible rectal prolapse: emergency surgical management of eight cases and a review of the literature. *The Medical journal of Malaysia* 2011;66(2):105-7.
6. Voulimeneas I, Antonopoulos C, Alifierakis E, Ioannides P. Perineal rectosigmoidectomy for gangrenous rectal prolapse. *World journal of gastroenterology* 2010;16(21):2689-91.
7. Madiba TE, Baig MK, Wexner SD. Surgical management of rectal prolapse. *Archives of surgery* 2005;140(1):63-73.
8. Sipahi M, Arslan E, Borekci H, Aytekin FO, Kulah B, Banli O. Perineal rectosigmoidectomy for incarcerated rectal prolapse (Altemeier's procedure). *Ulusal cerrahi dergisi* 2016 32(3):217-20.
9. Bayar R, Djebbi A, Mzoughi Z, et al. [Strangled rectal prolapse in young adults: about a case and review of the literature]. *The Pan African medical journal* 2016;25:60.