

## Management of Rectal Prolapsed in Children in Aba Nigeria

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### ABSTRACT

**Background:** Rectal prolapse is defined as the herniation of rectum through the anus. It is subdivided into partial and complete prolapse. The term Procidentia refers to the complete variety. Rectal prolapse usually occurs at extremes of age and a common problem in children in sub Saharan Africa. This study was on the assessment of management outcome of rectal prolapsed using Thiersch's circlage children.

**Methodology:** A prospective study conducted at Department of Pediatric Surgery, Abia State University Teaching Hospital Aba, Nigeria from January 2016 to December 2019. Patients with rectal prolapse for more than 3 months were included in the study and admitted 24 hours before the procedure. Docolax suppository was given in the evening before the operation. The procedure was performed under general anaesthesia. Vicryl size 1 was wrapped around the lower part of anal canal subcutaneously to augment the lax anal sphincter. Prophylactic antibiotics iv ceftriazone 50mg/kg and metronidazole 8mg/kg at the induction of anaesthesia. Patients were discharged home on same day on oral analgesics for a week and liquid paraffin for a month. They were followed up in the outpatient clinic monthly for 3 months and any complication was recorded and treated accordingly.

**Results:** Thirty-five patients, 20 males and 15 females, with rectal prolapse were operated during the study period. Age range was 2-8 years. No complication was seen during operation. Post-operatively painful defecation was observed in all patients, wound infection in 5 patients, scanty bleeding and diaper staining in 2 patients, constipation in 4 patients and recurrent rectal prolapse in 2 patients.

**Conclusion:** Surgical treatment of rectal prolapse by Thiersch's stitch is simple to perform and has less complications.

### Keywords

Rectal prolapse, Thiersch's stitch, Children.

### Introduction

Rectal prolapse is defined as the herniation of rectum through the anus [1]. It is subdivided into partial and complete prolapse. The term Procidentia refers to the complete variety. Rectal prolapse usually occurs at extremes of age due to a variety of causes considered as a sign of an underlying condition causing increased intra-abdominal pressure, pelvic floor weakness, poor root innervations as seen in Hirschsprung's disease as well as parasitic infection and infestations are known predisposing factors. It is most common at 2 to 5 years of age [2]. Parents often

provide history of a dark red painless mass protruding from the child's anus. Idiopathic rectal prolapse is seen in otherwise normal children. In sub-Saharan Africa; children with malnourishment and diarrhea frequently present with rectal prolapse of various intensity [3]. This sequel of events can be explained by the fact that in early age the child tries to learn the balanced act of defecation. It is perceived that the condition will improve over the period of time as the child is taught how to defecate. Children with conditions such as rectal polyps, worm infestation, proctitis can present with rectal prolapse. Prolapse usually occurs during defecation or crying. Failure to reduce the prolapse leads to venous stasis, edema and ulceration.

Most children with rectal prolapse do not require any specific treatment. Treatment should be directed at proper toilet training, treating constipation and eliminating any underlying cause such as gut worm infestation, diarrhea and rectal polyp. Prolonged toilet sessions and straining at stools should be discouraged [4].

### Methodology

A prospective study conducted at Department of Pediatric Surgery, Abia State University Teaching Hospital Aba, Nigeria from January 2016 to December 2019. Patients with rectal prolapse for more than 3 months were included in the study and admitted 24 hours before the procedure. Ducolax suppository was given in the evening before of operation. The procedure was performed under general anaesthesia. Vicryl size 1 was wrapped around the lower part of anal canal subcutaneously to augment the lax anal sphincter. Prophylactic antibiotics iv ceftriazone 50mg/kg and metronidazole 8mg/kg at the induction of anaesthesia. Patients were discharged home on same day on oral analgesics for a week and liquid paraffin for a month. They were followed up in the outpatient clinic monthly for 3 months and any complication was recorded and treated accordingly.

### Results

Thirty-five patients, 20 males and 15 females in a ratio of 4:3 with rectal prolapse were operated during the study period. Age range was 2-8 years. No intra-operative complication was noted. Post-operatively painful defecation was observed in all patients, wound infection in 5 patients, scanty diaper blood staining in 2 patients, constipation in 4 patients and recurrent rectal prolapse in 2 patients.

Age (years)	n	Age %
1-2	12	34
2-4	10	29
5-6	8	23
7-8	5	14

**Table 1:** Age distribution in years.

Sex	n	%
Male	20	57
Female	15	43

**Table 2:** Sex distribution.

Complications	n	%
Painful defecation	35	100
Wound infection	5	14
Bleeding	2	6
Constipation	4	11
Recurrence	2	6

**Table 3:** Complications following Surgery.

### Discussion

Historically, the correction of rectal prolapse has evolved from conservative measures like treating constipation, avoiding

excessive straining at defecation, avoiding squatting position during defecation, proper toilet training and eliminating any precipitating factors like malnourishment and diarrhea to surgical procedures such as simple perineal procedures like Thiersh's anal encirment to more complex perineal procedures like Delorme, Altemer, perineal rectosigmoidectomy with levatoplasty and abdominal approaches ranging from suspension options with or without bowel resection and use of slings and prosthetic material to restore rectal anatomy and function. In the last decade, laparoscopic repair has been successfully introduced and used in surgical treatment of rectal prolapse [5]. Surgical intervention is reserved for children in whom conservative measures fail. Children with recurrence of rectal prolapse after injection sclerotherapy also require any other surgical treatment.

Thiersch stitch was used as the surgical procedure for rectal prolapse in children in this series. Thirty-five patients, 20 males and 15 females in a ratio of 4:3 with rectal prolapse were operated during the study period s shown in Table 1 This procedure was selected due to the fact that rectal prolapse is common in our part of the world. Thiersch procedure was described for the first time in 1912 [6]. This study was conducted to emphasize that this procedure is still effective in the management of rectal prolapse in children. No previous study has been conducted in our centre before to assess its effectiveness regarding the management of rectal prolapse.

Thiersch stitch is recommended as a better surgical option because it is technically simple to perform, hospital stay is short, rapid healing and less side effects [7]. In our study there were no major side effects like myonecrosis. it is a better option than sclerotherapy as it is cost effective and the patient is exposed to general anesthesia only once, unlike injection sclerotherapy which may need more than one session to get the desired result [8]. Secondly if recurrence of rectal prolapsed occurs it can again be managed by the same procedure.

In the present study the rate of recurrence of rectal prolapsed was 2/35 these compares favourably to other studies done by Arshad and co-workers [9]. Hachiro et al. [10] regarding surgical management of rectal prolapse through injection sclerotherapy the recurrence rate had nearly same ratio. Post-operatively painful defecation was observed in all patients, wound infection in 5 patients, scanty diaper blood staining in 2 patients, constipation in 4 patients and recurrent rectal prolapse in 2 patients as shown in table 3. In another studies [11-14] regarding complication following the treatment of rectal prolapse using other techniques had recurrence rate of 2/28 and also creating a rectovaginal fistula in 1/28 patients.

### Conclusion

Rectal prolapse in children does respond to conservative management. A decision to operate is based on age of patient, duration of conservative management, and frequency of recurrent prolapse (>2 episodes requiring manual reduction) along with symptoms of pain, rectal bleeding, and perianal excoriation

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because of recurrent prolapse. Those cases presenting younger than four years of age and with an associated condition have a better prognosis.

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