ORIGINAL ARTICLE

Scelerotherapy with 5% Phenol in Almond Oil in Treatment of Rectal Prolapse in Children: Experience of District Head Quarter Hospital Kohat

FAZAL AHMED, WASEEM MUHAMMAD
Associate Professor of Surgery Kohat Institute of Medical Sciences , Administrator Health Ways Hospital, Kohat.
Correspondence Author:- Dr. Waseem Muhammad, Administrator Health Ways Hospital, Kohat.
Email:- waseem_kt@hotmial.com

ABSTRACT

Background: Rectal prolapse is an uncommon condition.Increased abdominal pressure is the main causative factor. Failure of conservative measures should be followed by surgical corrective procedures like Sclerotherapy followed by more aggressive surgery, including abdominal posterior rectopexy , abdominal or perineal bowel resection, transanal suture rectosacropexy , and posterior sagittal Anorectoplasty procedures have been described. Our study was conducted to observe the results of Sclerotherapy in young children.

Objective: To assess the efficacy ofscelerotherapy in treating children with rectal prolapse .

Material And Methods: 200 patients were included in our study. The study was conducted in the Surgical Department of District Hospital Kohat. Study design was Observational . All the patients below 5 years of age and having first degree rectal prolapse were included in our reseach. Patients having associated rectal bleeding and those having infective causes for diarrhea were excluded from the study. Regular follow up was done for 6 years. Scelerosant used was 5% Phenol in Almond Oil. The procedures were done by consultant surgeon to minimize procedural Bias. Results were analyzed using SPSS 17.

Results: 200 patients were studied. All patients were below 5 yrs of Age. All the patients were injected with 5 % Phenol in Almond oil. Patients were followed up for 2 years.6 weekly for first 6 months then 3 monthly for two years. It was observed that 15 patients lost Followup. 168 (84%) patients were cured by using scelerotherapy. 5 patients developed Complication (2 excoriation of rectal Mucosa, 1 proatatitis/cystitis and 2 bleeding) and 7 recurrence

Conclusion: Injection sclerotherapy is simple and should be considered as the first line treatment of rectal prolapse after failure of conservative measures.

Key Words: Sceleotherapy, Phenol in Almond oil, Rectal Prolapse

INTRODUCTION

Rectal prolapse is a well-recognisedalthough relatively uncommon condition in children. Etiology is usually related to straining, constipation, and functional defecation disorder in the west and rather diarrhoea, dysentery, and malnutrition third-world countries [1]. It is usually precipitated by the increased intra-abdominal pressure related to an excessive straining effort at defecation and may be associated with some anatomical configuration of the rectum and pelvis or loosely attached mucosa to the underlyingmuscularis of the rectal wall [2]. Rectal Prolapse is of two types of paediatric rectal prolapse. One is the intermittent self-limiting variety, more common, less pronounced, and responsive to conservative measures. The second type recurs with every defecation or straining. Treatment of second variety requires manual reduction, causing significant anxiety and distress both to the child and to the parents. Conservative measures can be successful in some cases. However surgical intervention is required for recurrent and distressing rectal prolapse. There are different surgical procedures that are carried out in rectal prolapse in children. Surgical procedures ranging from the less invasive injection sclerotherapy[3] to more aggressive surgery, including abdominal posterior rectopexy[4], abdominal or perineal bowel resection [5], transanal suture rectosacropexy[6], and posterior sagittal Anorectoplasty procedures [7] have been described. All these procedures lack consensus and evidence to reflect their success in all cases of rectal prolapse in children. Managing of rectal prolapse

surgically in adults are usually directed either at narrowing the anal orifice, suspending the rectum, shortening the redundant rectum, or restoring the enlarged pelvic floor and levator hiatus.

The aim of this study was to review our experience with the treatment of rectal prolapse in children and to formulate a management strategy based on outcome. It was an observational study.

MATERIAL AND METHODS

All the patients having rectal prolapse were admitted through outpatient department of Surgery at District Head Quarter Hospital, Kohat from june 2009 to june 2012. Data collected included age, gender, and clinical presentation, including number of visits to the emergency department, past medical history, clinical examination, investigations, treatment, complications, and outcome.Investigations included Complete Blood profile and a stool examination for parasites. Patients below 5 years of age and having Rectal Prolapse refractory to conservative measures were included in our study. Children with rectal Bleeding or rectal prolapse associated with loose motions with infective causes ,coeliac disease, and fat malabsorption were excluded from our research. All children were initially managed conservatively for constipation and straining, using stool softeners, laxatives, a high-fiber diet, and adequate fluid intake. All the patients underwent Injection sclerotherapyas the first line of surgical treatment.Patient also underwent proctoscopy in examination under anesthesia to rule out any local cause, such as a rectal polyp prior to submucous hypertonic Phenol sclerotherapy.

All the patients were followed up after every 6 weeks for recurrence and complications (Excoriation, Cystitis, Prostatitis, Bleeding) for first 6 months and then 3 monthly for two years.

Technique of submucous injection sclerotherapy

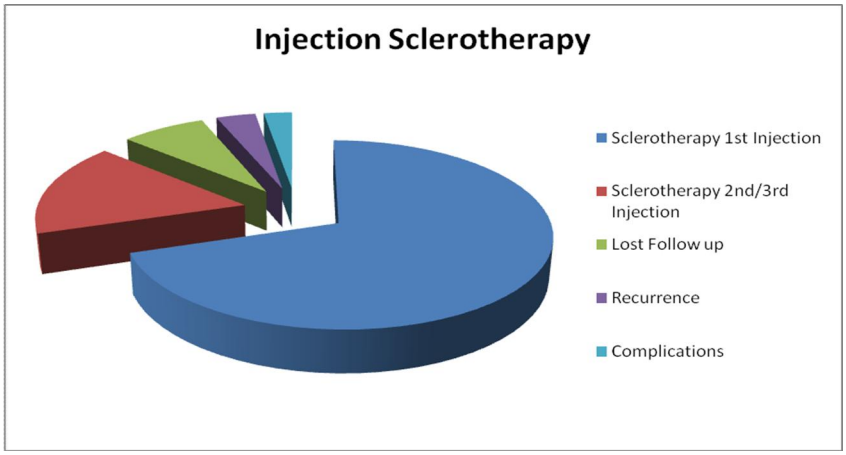
The operation was performed under general anaesthesia. The children were placed in lithotomy position. The buttocks and perianal area were scrubbed withpovidone-iodine. After digital examination of the rectum, ptoctoscopy was performed. 5 % Phenol in Almond oil was injected in the submucous plane in all four quadrants of the rectum 1–2 cm above the dentate line with a 21-gauge needle. A maximum of 4 ml (1 ml in each quadrant) was injected. The procedure was carried out as a day case.Children were discharged home to continue with their stool softeners, diet high in fibre and fluids, and oral analgesics.

RESULTS

A Total of 200 patients were included in the study. Out of these 15 patients lost followup after injection sclerotherapy. The range of the age of Children was 2–4.5 years (median 2.5 years).

Table 1:

Cured with Sclerotherapy Single Injection	2nd or 3rd Injection	Lost Followup	Recurrence	complications	Total
140	33	15	7	5	200



173 children (84%) were cured with Injection Sclerotherapy completely.Out of these 140 were cured with single dose and remaining required 2 or three doses. 7 patients reported with recurrence even after three doses of sclerosant. 5 patients had complication. 2 had bleeding, 2 excoriation of the rectal mucosa and 1 had symptoms of prostatitis. Folow up period was 6 weekly for first 6 months and then 3 monthly for 2 years. Data collected was analysed using SPSS 17.

DISCUSSION

Rectal prolapse is caused either by increased or prolonged straining associated with idiopathic constipation, hirschsprung's disease, and cystic fibrosis .It also occurs with dehydration and malnutrition associated with acute or chronic diarrhea and parasitic diseases [8]. Weakness of the pelvic floor as seen in adults is not the factor in children most of the times[9,10]. Patients with prolapse should have complete investigation in order to identify predisposing conditions such asparasitic infestation, and coeliac disease. Once the underlying cause is treated , the prolapse resolves in most instances.Surgical intervention is indicated in prolonged persistent prolapse.The pathophysiology of rectal prolapse is relevantbecause it has implications on treatment, as shown in this study. Prolapse begins at the mucocutaneous junction because of a shallow mucocutaneoussulcus. This is typical characteristic of the rectal prolapse in infants regardless of the length of the prolapse . In older children and adults, the prolapse is full-thickness, with invagination beginning at the rectosigmoid level[11,12].

Injection of differentsclerosant agents has been applied by different researchers [13,16]. 5 % Phenol in almond oil is the most commonly used. Submucosal injection helps to avoid complications such as ischiorectal abscess and perirectal inflammation .

In our research 173 patients (84%) were cured.(70% i.e 140 with single short and 33 with 2nd/ 3rd dose in the followup period) Kay and Zachary reported a success rate of 78% and 94%, whereas Guptta and Das reported a success rate of 83% and 97% using one and two injections of sclerosant[12,14,15]. Complications, including perirectal inflammation, ischiorectal abscess, and necrosis of rectal mucosa have been reported[17,18]. Submucosalinjection of reduced concentration avoided this morbidity with a good success rate in our patients.

Our findings and results substantiate that rectal prolapse in children in the younger age group(<5 years) begins with mucosa at the mucocutaneousjunction and proceeds in some cases to full thickness of the bowel. The aim of surgical intervention in these cases should therefore be creation of fibrous adhesion betweenthe mucosa and the muscle wall of the rectum hence the reported success of submucoussclerosant injections.

CONCLUSION

Our study proved that injection sclerotherapy is a very effective first line treatment of rectal prolapse that is refractory to conservative and medical treatment. It has a very low recurrence and the complication rate .

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