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ORIGINAL ARTICLE

Infants and Children who Experience From Rectal Prolapse

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ABSTRACT

Aim and Objective: to understand the outcomes of treating pediatric rectal prolapse with injection sclerotherapy using 5% phenol in almond oil.

Setting & Design: Department of Pediatric Surgery MTI / LRH, Peshawar, Pakistan. A- Descriptive Study the duration of study from June 2021 to June 2022

Material & Method: In Pediatric Surgery, rectal prolapse is a prevalent issue with various potential solutions. Injection sclerotherapy was one of the techniques studied in this analysis of treatments for children with rectal prolapse. Patients who have had complete prolapse for more than three months were considered. Patients were checked in 24 hours before surgery. Before the procedure began, a Kleen Enema was administered. This operation was done while the patient was under general anesthesia. Sclerotherapy was performed by injecting a solution of 5% phenol in almond oil. While the patient was unconscious, an injection was placed in the rectum's submucosa. 8-10mL of a 5% phenol in almond oil solution was injected at 3-4 linear locations. Every patient was monitored for a whole month to look for signs of recurrence.

Results: A total of 42 individuals were seen. There were 32 men and ten women among the total number of patients. Children as young as two years old and as elderly as eight years old were involved. A prolapse might endure between three months to four years. For 26 people, chronic diarrhea was a recognized problem. Sclerotherapy injections were administered to a total of 26 patients. There were no issues from the anesthesia or the procedure itself. There was no evidence of a recurrence during the one-month follow-up.

Practical implication: This study will review our experience with the treatment of rectal prolapse in children and to formulate a management strategy based on outcome.

Conclusions: Rectal prolapse may be successfully treated securely, affordably, and efficiently with injectable therapy using 5% phenol and almond oil.

Keywords: Recto Prolapse, Sclerotherapy, children, injectable therapy, Sclerotherapy

INTRODUCTION

There are two types of rectal prolapse: partial and complete.[1] Rectal prolapse is the herniation of the rectum through the anus. Procedentia is Latin for "all the many kinds," meaning everything. Symptoms of prolapsed bowels are more common in the elderly. The peak incidence occurs between the ages of 3 and 5.[2, 3]

Parents often report that their kid was born with a dark crimson protrusion from the anus. As a rule, a youngster feels no discomfort[4]. Rectal prolapse of unknown cause occurs in healthy children[5]. A rectal prolapse of varying severity[6] is a common symptom in our region of the globe among children who are malnourished and have diarrhea. The child's early efforts to master the art of defecation include a delicate balancing act, which explains this chain of events. As youngster learns to defecate on their own, their condition is expected to improve gradually. Prolapse of the rectosigmoid mucosa occurs most often between the ages of one and three when the rectal mucosa is still developing and is weakly linked to the underlying muscular, and the sacrum has flattened.[7, 8] Learning to control one's bladder and bowels also occurs during this period. Children with Ehlers-danlos syndrome, cystic fibrosis, Ehlers-danlos syndrome, Ehlers-danlos syndrome, and proctitis are additionally at risk for developing rectal prolapsed [9,10]. The insufficiency of the pelvic floor muscles is a typical cause of rectal prolapse in children with bladder exstrophy and myelomenigocele[11].

In most cases, prolapse happens while the victim is sobbing or urinating. If the prolapse isn't reduced, complications, including edema and ulceration, might develop from blood pooling in the veins. If it lasts too long, the bowel may swell (become edematous), and you may need to apply continuous pressure for several minutes to get the swelling down and enable the reduction to happen[12]. If rectal prolapse returns, the buttocks must be reduced as soon as possible, and a single band of adhesive tape must be used to hold the buttocks together for several minutes[13].The vast majority of kids who have a prolapsed bowel or urethra can get by without medical attention. Constipation treatment plans should focus on resolving underlying issues like worm infestation, diarrhea, or a rectal polyp and addressing behavioral changes like learning how to use the bathroom properly. Discourage prolonged toilet use and straining at feces [14,15]. Thiersh's anal encirclement, a relatively simple perineal procedure, has given way to more complex perineal systems such as the Delorme, Altemer, and perineal recto sigmoidectomy with keratoplasty, as well as abdominal approaches such as suspension options with or without bowel resection, and the use of slings and prosthetic material to restore rectal anatomy and function. Rectal prolapse surgery has progressed dramatically in the past ten years, with the introduction and widespread use of laparoscopic correction. When non-invasive treatment options have failed, pediatric surgeons may intervene surgically. When injectable sclerotherapy fails to resolve rectal prolapse in children, children will need any other surgical treatment[16]. This condition, known as rectal prolapse, is rather prevalent where I come from. Although the condition is harmless, it may be worrisome for both the parent and the kid if it persists. Due to this, parents are pushing for preventative measures. Edema, laceration, and even gut necrosis may occur when a prolapsed rectum is present, resulting in perforation[17]. Rectal prolapse treatment is contentious, as there is now no accepted standard. Procedures ranging from laparoscopic to abdominoperineal repair are discussed. This research aimed to evaluate the efficacy of sclerotherapy injections containing 5% phenol in almond oil for treating pediatric rectal prolapse.

METHODS & MATERIAL

From June 2021 through June 2022, researchers from the Department of Pediatric Surgery at MTI/LRH in Peshawar gathered data for a descriptive study. All children who were hospitalized or otherwise cared for within this time frame were considered. A comprehensive blood picture and a thorough inspection of the patient's bowel movements were among the diagnostic procedures for those admitted to the unit. Oral metronidazole was prescribed

for all patients. Patients with prolapsed rectum who sought emergency care had their prolapse corrected manually while sedated.

Injectable sclerotherapy was performed on almost all of the patients. Sclerosant was phenol in almond oil (at 5% concentration). A phosphate enema was used to empty the bowels the night before the surgery. There was a whole-body numbing for this treatment. Sclerosant was injected into the rectal sub mucosa via a mucocutaneous junction with the patient in lithotomy or left lateral position using a finger inserted into the anal canal to guide a broad bore needle. In one session, around 8-10 ml of 5% phenol in almond oil was injected at 3-4 spots along a straight trajectory. Same-day evening discharges were common. The patients were monitored for one month to look for recurrence or other problems.

RESULTS

Thirty-two people, 24 males and eight females, were officially counted as patients. Participants ages varied between two and five years. One hundred percent of patients complained of symptoms involving the anus. There was rectal bleeding in 17 individuals (53.12%). The time it took for symptoms to subside varied from one day to four years. Twenty-three patients experienced prolapse rectum problems that persisted for three months or longer. Only nine individuals had prolapse that had occurred during the previous three months. Seven of the nine patients had a prolapsed rectum that was difficult to decrease and retain. Twenty-six patients (81.25%) had a prior history of diarrhea. Fifteen of them had hemoglobin levels below 9 percent. Twenty-one individuals underwent DR of the stools. The vast majority of people said it wasn't noticeable. Protozoa and helminths ova/cysts were found in 8 cases. After diagnosing three patients with acute dysentery, doctors prescribed them oral metronidazole and sent them home to recover. Three patients departed against medical advice, and they didn't come back. Sclerotherapy injections containing 5% phenol in almond oil were given to 26 patients. These 26 patients were monitored for a total of 30 days. Neither the anesthesia nor the treatment itself resulted in any unwanted side effects. There was no evidence of a recurrence at the 1-month follow-up, although we lack data on the disease's persistence.

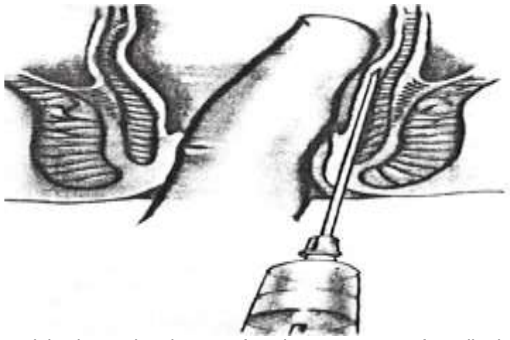

Figure 1: injection sclerotherapy for the treatment of pediatric rectal prolapse:

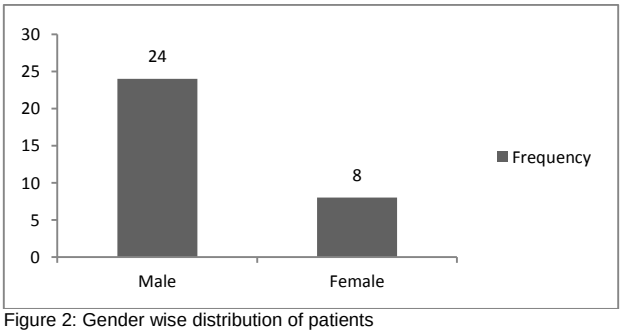

Figure 2: Gender wise distribution of patients

DISCUSSION

In most cases, children with rectal prolapse outgrow the issue independently. There is currently no standard gold method for treating pediatric rectal prolapse[18]. Most patients may be treated conservatively by avoiding risk factors such as diarrhea, polyps, constipation, and crouching while using the restroom [19]. Rectal prolapse is sometimes treated surgically, although there is currently no agreement on which of the several surgical approaches reported in the literature is the most effective [20,21]. The length of time it takes for problems to resolve themselves varies. Rectal prolapse is a nuisance and a source of horror for parents, and it may not be easy to treat. The vast majority of households, 22%, regularly request outside help. Rectal prolapse therapy is controversial because of disagreements about the best course of action. Sclerotherapy is one of several surgical options [23,24]. Sclerotherapy, with or without Thiersch's ligature, is the standard treatment of choice because of its low risk of complications, fast recovery time in the hospital, and short inpatient stay. [2,14,18-20] In our research, we have employed sclerotherapy as the major method of treating rectal prolapse in children.

Cow milk, 50% dextrose water (D/W), 15%, 25%, and 30% saline solutions, and 5% phenol in almond oil are only a few sclerosing agents employed by different studies. Since they both result in a chemical kind of aseptic inflammation, their mechanisms of action are quite similar. As a sclerosant, we employed phenol diluted in almond oil at a concentration of 5%. Phenol is readily accessible, cheap, and has a well-documented sclerosant effect[2]. In two-part research, Batool et al. looked at how to treat children with idiopathic rectal prolapse. Moreover, half of the patients with prolapse improved after three months of carefully following them in the first phase of the research. Therefore, they advise holding off on any intervention for at least three months.

During the study's second phase, participants received injectable sclerotherapy as an intervention. Two weeks after a single injection, 58% of patients were healed, and at the end of three months, 100% had recovered. This was a critical finding[2]. We had not been keeping tabs on patients till Most of our patients presented with prolapse that had already persisted for more than three months, but this condition resolved on its own. Not to mention, the majority of our patients were from economically depressed locations deep inside Sindh. And yet, our research's findings are consistent with their phase 2 trial. Dr. Khan D. has successfully administered sclerotherapy injections to 130 patients.

For this reason, he has included Thiersch's stitch using chromic catgut into the technique. The reason given was that prolapse wouldn't happen. Therefore, the sterile inflammation caused by the phenol injection takes effect while the rectum is still within the anus. In his investigation, three out of fourteen individuals had a recurrence after a month of observation. When doing injectable sclerotherapy, we have not included Thiersch's ligature. After the one-month follow-up, we did not identify any recurrence in our patients.

Nonetheless, no definitive conclusions can be drawn due to the limited sample size and the lack of long-term follow-up. Injection sclerotherapy has a mixed success rate. The vast majority of patients are cured with the first injection. Literature [1,2,18–20] describes up to three injectable sclerotherapy treatments. Only one injection session was included in our series. Although peri anal abscesses have been reported14, no such complications occurred in our patients.

CONCLUSION

Sclerotherapy injections with 5 percent phenol in almond oil have been shown to be an efficient, risk-free, low-cost, and conveniently accessible therapeutic option. It's best to start early to ease the stress and frustration of parents.

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