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Original Research Paper

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POSTERIOR SAGITTAL ANORECTOPEXY FOR PAEDIATRIC RECTAL PROLAPSE

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ABSTRACT

Introduction: Rectal prolapse is a very common and self limiting condition amongst the paediatric age group in India. Majority of the cases respond to conservative management. The various modalities of management of the same include surgical as well as medical modalities. Surgical namely Thierschs anal circlage, laparoscopic suture rectopexy, and posterior sagittal rectopexy

Aim - To evaluate the safety and efficacy of posterior sagittal rectopexy in children with rectal prolapse.

Patients and Methods: Twenty patients aged between 1 and 7 years presented with rectal prolapse.

These patients underwent posterior sagittal anorectopexy after pre anaesthetic check up. These patients were followed up at 1week, 15days and 1month for 3 months.

Results: Constipation improved in 18 out of 20 patients, who had a history of constipation before surgery. Partial mucosal prolapse recurrence occurred in two patients.

Conclusion: Posterior Sagittal Rectopexy is a good option in cases of rectal prolapse in children once all the conservative methods have failed. The technique is safe and effective. It has satisfactory functional results.

KEYWORDS :

INTRODUCTION

Children are said to be more susceptible than adults to rectal prolapse because of the vertical configuration of the pelvis and sacrum. Prolapse can be precipitated by straining due to constipation or diarrhea, parasitosis, rectal polyps, or too early and overzealous toilet training. Rectal prolapse in the absence of systemic illness or specific abnormality has a peak incidence in the second and third years of life[9,10].

Management of prolapse can be operative or non-operative. In the absence of generalized disease that predisposes to prolapse, treatment can be supportive namely, 1) laxatives, 2) advising high fibre diet, 3) prompt defecation and avoiding prolonged straining. Various surgical approaches such as Thiersch repair, transanal resection of prolapsed mucosa, abdominal rectopexy, and posterior sagittal anorectopexy.

Each one of these techniques has its advantages and limitations. The aim of this study was to evaluate the safety and efficacy of posterior sagittal rectopexy in children with rectal prolapse.

Patients and methods: This is a retrospective file review study conducted on children admitted to the Pediatric Surgery Unit, Smt Kashibai Navale Hospital in the period November 2018 to October 2020, for management of rectal prolapse. All children had complete rectal prolapse . Primary outcomes were change in bowel habits, incontinence, and recurrence rates, whereas secondary outcomes were operative time, bleeding, and postoperative complications.

Surgical technique

After adequate bowel preparation the patient was posted for posterior sagittal rectopexy under general anaesthesia.The patient was placed in the prone Jackknife position. Under aseptic precautions painting and draping was done. Skin incision was taken from just above the coccyx down to the anal verge. The incision was deepened and the sphincter complex was divided exactly in the midline. Presacral space created, lateral wall of the rectum dissected and rectum mobilized. Rectum horizontally plicated with vicryl 3-0 sutures by passing the sutures through the seromuscular layer of the rectum. These sutures were tied on an appropriate-size Hegar dilator that was placed in the anus to avoid excess narrowing of the rectum.The rectum was proximally hitched to the sacrum with proline 3-0RB sutures. The sphincter complex and parasagittal muscles of both sides were then approximated in the midline by interrupted vicryl 3/0 sutures that passed through the seromuscular coat of the back of the rectum to fix it. Lastly, skin incision was closed without a drain .

The patients were started on laxatives from post operative day 3

All patients were discharged home after 6-7 days

Analgesics and antibiotics were used for 3 days.

RESULTS-

The study had a total of 20 patients. Surgery was planned only after the failure of conservative management.Their ages ranged from 1 to 7 years.The average duration of surgery ranged from 45 to 80 min (average 65 min).The immediate postoperative course was uneventful. Of the 20 patients 18 were relieved of symptoms. 2 had a partial mucosal prolapse for which mucosal excision was done. There was no evidence of surgical site infection in any of the patients.

DISCUSSION-

Rectal prolapse in children is probably precipitated due to weak levator musculature or due to loose attachment of the submucosa to the underlying muscularis.The prolapsed segment could be ranging from 1-2 cm to extensive prolapse leading to incarceration[5,12].

Several surgical techniques have been reported for treatment of rectal prolapse in children after failure of conservative management. The number of different operations described for rectal prolapse denote absence of a uniformly effective treatment. Injection sclerotherapy is another option; however, a high recurrence rate that reached 36% after single injection of sclerosing material and 16% recurrence after three injections was reported.

Thiersch perianal suture that encircle the anus to narrow the orifice simply hides the prolapse, but is not correcting any of the anatomical changes that occurs in patients with prolapse. Many surgeons reported a high rate of recurrence after this circlage. Winston et al,reported a recurrence rate of 36% after single injection of sclerosing material and 16% after 3

injections[8]. Whitlow et al stated that perineal approach for repair of rectal prolapse have lower operative mortality and morbidity than the abdominal approach.

Abdominal rectopexies, abdominal/ perineal bowel resections, and encircling procedures carry a collective risk of recurrence of approximately 25%. Laparoscopic mesh rectopexy could avoid the morbidity of a large perineal or abdominal incision[3]. It has been reported that prosthetic materials are not necessary in all cases . This series used a similar technique that was described by Ashcraft et al. in 1990 as the 'levator repair and posterior suspension procedure for rectal prolapse[1]. The technique surgically accomplishes the objectives of the other nonoperative and operative methods of treatment. PSR repair focuses on the anatomic part by fixing the retrorectal area posterior to the levator ani and muscle complex, as well as on the functional part by plication of the dilated rectum. The recurrence rate after PSR is variable in different series. Saleh reported no recurrence after posterior plication of the rectum in a series of 20 patients[6]. Similarly, Tsugawa et al. reported no recurrence in 14 patients, after fixation of the sutures of the rectal wall to the coccyx[7].

The major aftermath about PSR was the potential damage of the levator ani and postoperative anorectal incontinence, this can be completely overcome by staying exactly in the midline.

Conclusion The results of this study showed that PSR is both feasible and is a good option in cases of rectal prolapse in children. The technique is associated with excellent functional results.

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