

# AN EXPERIENCE OF MANAGEMENT OF RECTAL PROLAPSE IN CHILDREN

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## ABSTRACT

- Objective* To analyze the results of injection sclerotherapy (5% phenol in almond oil) with Thiersch's stitch for rectal prolapse in children.
- Study design* Descriptive study
- Place & Duration of study* Paediatric Surgical Department at Sandeman Provincial Hospital Quetta, from January 2006 to December 2006.
- Patients and Methods* All patients presenting with rectal prolapse either in emergency or as elective cases were entered into the study. Procedure was done under general anesthesia. All patients received injection sclerotherapy using 5 percent phenol in almond oil. It was injected submucosally. Maximum amount used was 8 -10 ml in one sitting. It was injected at three locations in linear fashion. A Thiersch's stitch using chromic catgut was also applied as a part of the procedure. All patients were followed for a month to note any recurrence.
- Results* Total number of patients was 130. There were 73 male and 57 females. The age ranged from 2 years to 12 years. No anesthesia related complications occurred. Hospital stay was one day in elective cases. Recurrence noted in three cases. Complications occurred in three patients in the form of local abscess that needed drainage.
- Conclusions* Sclerotherapy alone is not always successful in relieving rectal prolapse. Addition of Thiersch's stitch help sclerosant to takes its effect while rectum is still retained inside the body. We therefore recommend this protocol for the treatment of rectal prolapse
- Key words* Rectal prolapse, Thiersch's stitch, Injection sclerotherapy.

## INTRODUCTION:

Rectal prolapse also called procidentia, is defined as a protrusion of the rectum out of anal canal. It is further subdivided into partial and complete varieties. Procidentia usually refers to later type.<sup>1</sup> Rectal prolapse usually occurs at extreme of ages. Rectal prolapse in children is not

uncommon. It is found through childhood.<sup>2</sup> There are many other conditions that predispose or precipitate rectal prolapse like myelomeningocele, malnutrition, malabsorption etc. Idiopathic rectal prolapse is usually seen in otherwise healthy children.<sup>3</sup> In our part of world it is not uncommon to see patients suffering from diarrhea having rectal prolapse. Malnourished children also frequently present with rectal prolapse of various intensity. In addition to above mentioned predisposing and precipitating conditions there is a large group of patients where no definite cause for

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rectal prolapse can be found. This group is come known as an idiopathic variety.<sup>4</sup> The explanation put forward to explain the occurrence of prolapse is based upon the child, usually in early ages trying to learn the balanced act of defecation. Thus it is usually perceived that condition will improve over period of time as child is taught how to defecate.<sup>5</sup>

This happy outcome does not occur always. At times rectal prolapse persists and parents demand some kind of intervention. This opens up an entirely new management dilemma. The management of rectal prolapse has always been point of discussion Various modes of treatment from minimally invasive to abdomino-perineal surgeries have been described. One then confronts as to which one to choose from the armamentarium that surgeon has. This study is undertaken to find out the results of injection sclerotherapy in combination with Thiersch's stitch as a primary treatment, in cases of rectal prolapse.

#### **PATIENTS AND METHODS:**

An interventional study was carried out at Paediatric Surgical Department at Sandeman Provincial Hospital Quetta, from January 2006 to December 2006. All patients of rectal prolapse managed during one year period were included in the study. Patients underwent routine investigations like blood complete picture and were put on oral liquids 48 hours prior to the procedure that was done under general anesthesia. 24 hour prior to surgery they received slaine enema twice a day to mechanically wash out rectum and oral metronidazole was added.

All patients received injection sclerotherapy using 5 percent phenol in almond oil. It was injected submucosally. The needle was passed through skin at anal verge into desired plane guided by a finger kept in the rectum. Maximum amount used was 8 -10 ml in one sitting. It was injected at three locations in linear fashion. A Thiersch's stitch using chromic catgut was also applied as a part of the procedure. All patients were followed for a month for complications and recurrence.

#### **RESULTS :**

Total number of patients was 130. There were 73 males and 57 females. The age ranged from 2 years to 12 years. History of recurrent diarrhea was present in majority of cases. Two children were mentally retarded. In two patients vesical calculus was also present. Ten patients were brought with irreducible rectal prolapse in emergency. These children were admitted and prolapse reduced under sedation. They then received injection sclerotherapy as an elective procedure. All other patients received same treatment. In all patients managed electively hospital stay was only one day. No anesthesia related complication occurred in this series.

At one month follow up recurrence was noted in three cases. They received injection sclerotherapy again and improved.

The only complication noted was abscess at perianal region in three cases. All settled following drainage. Long term follow up is not available.

#### **DISCUSSION:**

Rectal prolapse is a common problem in children living in this part of the world and in other developing countries. It usually is a self limiting condition. The time taken for spontaneous resolution is not agreed upon. Batool et al in their study found that in more than 50% of patients prolapse disappeared within 3 months. It is therefore recommended to wait at least three months before embarking upon any other mode of management.<sup>6</sup> However this study did not address the problems faced by patients and families during this time period. Prolapse at times is very difficult to reduce and it's very presence is alarming and horrifying to many parents. Some kind of intervention has always been requested by most families.

The type of intervention for rectal prolapse is not agreed upon. It ranges from sclerotherapy to host of surgical procedures.<sup>7-9</sup> The type of sclerosants and surgical procedure to undertake are also controversial.<sup>10</sup> So literature is full of variety of treatment options for this condition and made it one of the most disputed pathology to address. However success has been reported with many of these approaches in majority of cases. We in our study combined sclerosant with application of Thiersch stitch both of which are minimally invasive procedures.<sup>11</sup>

Various types of sclerosants have been used for treatment of rectal prolapse in children. This includes oily phenol injections, hypertonic saline, 15% dextrose water, deflux, alcohol etc.<sup>11-14</sup> Phenol in almond oil has been reported to be effective. Being cheap and easily available, it is used widely. This chemical is not benign as many complications have been reported but the incidence is quite low. It works by producing fibrosis resulting from precipitation of proteins. It is disinfectant and corrosive. Oily preparation prevents its systemic absorption. Almond oil is used as excepiant, an agent that carries other pharmacologically active ingredient. Its use in children is usually guarded and great precaution has to be exercised when injected. Dose is not agreed upon but it is usually recommended not to exceed 10 ml in one sitting which we observed in our study. Injection in perirectal space should be avoided as it may inadvertently injures important adjacent tissues. Complications of misplaced injection can result in prostatic abscess, ischiorectal fossa absecess etc. In our patients three developed perianal abscess that may be the result of extra rectal seepage of some of the agent. Local ulceration and sterile abscess formation may also occur. Sloughing and extensive necrotising fasciitis of tissue have been reported while systemic absorption may lead to cardiac arrhythmias. Pyrexia and allergic reactions have been reported. Plastic syringes for storage of this agent is not recommended. Glass syringes are preferred.<sup>11</sup>

Rectal prolapse is not an uncommon problem in our clinical practice. Patients visit from far off areas including Afghanistan. As follow up is a problem a need of a procedure with effective result and least complication with uniform application is always felt. The addition of Thiersch's stitch was done to ensure more effective way of managing post sclerosant time period. It acts mechanically to prevent prolapse. The sterile inflammation as a result of phenol injection thus acts while rectum remaining inside the anus.<sup>15</sup> It also prevents immediate prolapse following recovery from anesthesia while patient strains. The type of suture material used is not agreed upon. We used chromic catgut as it is absorbable. The drawback of it is production of more inflammation in comparison with other sutures. There are others who recommend use of non absorbable material like silk and prolene. The disadvantage is that these have to be removed at later date. If patient does not come for follow up it may result in various complications like perianal abscess.<sup>16</sup> Scrotal abscess and perineal myonecrosis have been reported with Thiersch stitch.<sup>17,18</sup>

Bowel training is an important part of management. Squatting position at defecation is not recommended. Similarly timely evacuation of bowel (defecation habit) is also stressed upon. This behavioral modification couple with high fibre diet prevent rectal prolapse. We therefore recommend this approach for the management of rectal prolapse in children.<sup>5</sup>

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