

NEGLECTED HUGE RECTAL PROLAPSE IN IMMUNOCOMPROMISED: the place for Thiersch.

Igwe P.O., Dodiya-Manuel A., Kalu G.A.

Department of Surgery, University of Port Harcourt Teaching Hospital Alakabia, Rivers State, Nigeria.

CORRESPONDENCE:

igwe_patrick@yahoo.com

ABSTRACT:

Background:

Rectal prolapse is not an uncommon condition in an immunocompromised individual. It occurs when all or part of the rectum protrudes through the anal canal. It is often a distressing condition to patients and relatives. The place of Thiersch wiring is to be emphasized as well as review of literature.

Aim:

This is to report a case of huge rectal prolapse in an immunocompromised individual and emphasize the place of Thiersch wiring.

Case Report:

A 49 year old business man presented with complaints of anal protrusion of 3 days duration. It has been recurring especially during defaecation and reducible spontaneously for the past 10 years until 3 days prior to presentation when it became irreducible. He had no bleeding per rectum. It was painless, with nocturia, frequency and polyuria. There was a prior history of lifting of a heavy log of wood. There were unsuccessful attempts at reduction in a peripheral center.

Examination revealed a middle aged man with stable vital signs but with a huge mass in the rectum. An emergency reduction and thiersch procedure was done under regional anaesthesia. Procedure was well tolerated. His outpatient follow up has been uneventful.

Conclusion:

Thiersch wiring repair has a place in immunocompromised especially where minimal procedure is best due to patients survival and surgeons safety.

Key words: Rectal prolapse, immunocompromised, Thiersch wiring.

INTRODUCTION:

Rectal prolapse, described as early as 1500 BC, had three different clinical entities often combined under the umbrella term rectal prolapse viz: Full-thickness rectal prolapsed, mucosal prolapsed and Internal prolapse also called internal intussusception.

Rectal prolapse occurs when a mucosal or full-thickness layer of rectal tissue protrudes through the anal orifice¹. There are associated problems such as fecal incontinence, constipation, and rectal ulceration which are common.

Full-thickness rectal prolapse is defined as protrusion of the full thickness of the rectal wall through the anus. This is the most commonly recognized type. Mucosal prolapse, in contrast, is defined as protrusion of only the rectal mucosa (not the entire wall) from the anus.

Internal intussusception may be a full-thickness or a partial rectal wall disorder, but the prolapsed tissue does not pass beyond the anal canal and does not pass out of the anus.

Case report.

A 49 year old business man presented with complaints of anal protrusion of 3 days duration. It has been recurring especially during defaecation and reducible spontaneously for the past 10 years until 3 days prior to presentation when it became irreducible. He had no bleeding per rectum. It was painless, with nocturia, frequency and polyuria but no respiratory symptoms. There was a prior history of weight lifting of a heavy log of wood.

Since onset of symptoms, he had received several herbal medications but to no avail. There were unsuccessful attempts at reduction in a peripheral center. He is a known asthmatic on a salbutamol inhaler. He was not a known hypertensive or diabetic. He had no drug allergies. He is single and he has no family history of hypertension or diabetes mellitus. He uses alcoholic beverages and takes tobacco products.

On examination, he was a middle aged man, weak, not dehydrated, not pale, afebrile (37.1 °c). There were no peripheral lymphadenopathy and no pedal oedema. Blood pressure was 120/90 mmHg. Abdomen was full, moved with respiration and there was no organomegaly. Rectal examination revealed huge erythematous mass protruding from the anal canal. It was oedematous. A clinical diagnosis was rectal prolapse.



Fig 1. Full thickness rectal prolapse prior to reduction.

DISCUSSION:

There are two main theories, which essentially are different ways of expressing the same idea regarding the pathophysiology of rectal prolapse. The exact mechanism is not completely understood or agreed upon. The first theory postulates that rectal prolapse is a

Results of investigation showed a complete blood count within normal limits, serology for HIV was positive but HBsAg and HCV antibody were negative and VDRL was Non –reactive. His serum electrolyte, urea and creatinine were within normal limits. Abdominal ultra sound scan showed an essentially normal study.

He had daily dressing with normal saline soaked gauze was placed on intravenous normal saline 1litre 8 hourly for 24hours ,Intravenous ceftriaxone 1g daily and intravenous metronidazole 500mg 8 hourly and Intramuscular pentazocine 30mg 6hourly for 24 hours.

After few days on admission, an emergency reduction and Thiersch procedure was done under regional anaesthesia. Procedure was well tolerated. (Fig 1-11). His outpatient follow up has been uneventful.



Fig 2. After Thiersch, immediate post op.

sliding hernia through a defect in the pelvic fascia. The second theory holds that rectal prolapse starts as a circumferential internal intussusception of the rectum beginning 6-8 cm proximal to the anal verge. With time and straining, this progresses to full-thickness rectal prolapse, though some patients never progress beyond

this stage². The pathophysiology and etiology of mucosal prolapse most likely differ from those of full-thickness rectal prolapse and internal intussusceptions². Mucosal prolapse occurs when the connective tissue attachments of the rectal mucosa are loosened and stretched, thus allowing the tissue to prolapse through the anus. This often occurs as a continuation of long-standing hemorrhoidal disease and is treated as such.

Often, rectal prolapse begins with an internal prolapse of the anterior rectal wall and progresses to full prolapse. The precise cause of rectal prolapse is not defined; however, a number of associated abnormalities have been found. As many as 50% of prolapse cases are caused by chronic straining with defecation and constipation². Other predisposing conditions include pregnancy, previous surgery, diarrhea, benign prostatic hypertrophy, chronic obstructive pulmonary disease (COPD), cystic fibrosis, pertussis (ie, whooping cough), pelvic floor dysfunction, parasitic infections – Amebiasis, schistosomiasis, neurologic disorders - Previous lower back or pelvic trauma/lumbar disk disease, cauda equina syndrome, spinal tumors, multiple sclerosis, disordered defecation (eg, stool withholding)

Certain anatomic features found during surgery for rectal prolapse are common to most patients. These features include a patulous or weak anal sphincter with levator diastasis, deep anterior Douglas cul-de-sac, poor posterior rectal fixation with a long rectal mesentery, and redundant rectosigmoid. Whether these anatomic features are the cause or result of the prolapsing rectum is not known³. Rectal prolapse is uncommon; however, the true incidence is unknown because of underreporting, especially in the elderly population. Peaks in occurrence are noted in the fourth and seventh decades of life, and most patients (80-90%) are women.

The annual incidence of rectal prolapse in Finland was found to be 2.5 per 100,000 population⁴. In the adult population, the male-to-female ratio is 1:6. Although in adults women account for 80-90% of cases, in the pediatric population, incidence of rectal prolapse is evenly distributed between males and females.⁵

Untreated rectal prolapse can lead to incarceration and strangulation (rare). More commonly, increasing difficulties with rectal bleeding (usually minor), ulceration, and incontinence occur. Postoperative mortality is low, but the recurrence rate can be as high as 15%, regardless of the operative procedure performed. The most common postoperative complications involve bleeding and dehiscence at the anastomosis. Other complications include mucosal ulceration and necrosis of the rectal wall. Operative complications are higher for abdominal operations, with a lower recurrence rate; the

opposite is true for perineal operations, which have a much lower complication rate but a higher recurrence rate.

Contraindications to surgical correction of rectal prolapse are based on the patient's comorbidities and his or her ability to tolerate surgery. Surgical treatments can be divided into two categories according to the approach used to repair the rectal prolapse: abdominal procedures and perineal procedures. The choice between an abdominal procedure and a perineal procedure is mainly dictated by the patient's age and comorbidities^{6,7,8}

On the whole, the abdominal procedures have a lower recurrence rate but a higher morbidity. Accordingly, older, debilitated patients (whose life expectancy is shorter) are generally treated with perineal procedures, whereas younger, healthier patients are typically treated with abdominal procedures. It should be noted, however, that many surgeons with copious experience and low recurrence rates also advocate perineal procedures for their younger, healthier patients. The choice of procedure is also dictated by the presence or absence of constipation. Children are treated with linear cauterization. Surgical therapy for internal prolapse is usually avoided because results are poor, with durable relief of symptoms occurring in fewer than 50% of patients. Regardless of the type of procedure being planned, full mechanical and antibiotic bowel preparation should be carried out before surgery. Intravenous (IV) antibiotics should always be administered preoperatively; if a foreign material is being implanted, postoperative administration of antibiotics may also be considered.

In a study of the long-term outcome of Altemeier perineal rectosigmoidectomy, Altomare et al reviewed the medical records of 93 patients and concluded that this operation is relatively safe and effective in frail, older patients, with postoperative morbidity being low.⁹ However, the recurrence rate after the procedure was not negligible, and the operation was found to be unpredictable in terms of restoring continence. Recurrences can be treated with a repeat Altemeier procedure.

In a study of 32 patients with external rectal prolapse, Hetzer et al concluded that perineal stapled prolapse resection is a fast and effective treatment for this condition.¹⁰ The operation, as performed in the study, involved pulling out the prolapse completely and—at 3 and 9 o'clock, in lithotomy position—axially cutting it open with a linear stapler. Resection was performed with a curved Contour Transtar stapler.

The investigators reported no intraoperative

complications, though two patients experienced minor postoperative complications. 10 Median surgical time and hospital stay were 30 minutes and 5 days, respectively. At follow-up (median, 6 months), at which time data was available for 31 patients, 90% of cohort members no longer had the severe fecal incontinence that had existed preoperatively, with the cohort's median Wexner score dropping from 16 to 1. No new cases of constipation were reported to have developed.

Tschuor et al studied nine patients who underwent perineal stapled prolapse resection from 2007-2011. They concluded that although the procedure is fast and safe, the long-term functional outcome was poor, and the recurrence rate was 44%.¹¹

In our patient, we noted that the minimal invasiveness of the procedure, helped reduced the post operative morbidity. Also intra-operative time and anaesthetic load on the patient was drastically reduced. This aided recovery and rehabilitation. It also reduced risk to the patient.

CONCLUSION:

Thiersch repair has a place in immunocompromised especially where minimal procedure is expected. This will reduce metabolic response to trauma and hence aid patients survival.

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