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Case Report

Altemeier procedure for incarcerated rectal prolapse in young age: a rare case report

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ABSTRACT

Rectal prolapse is complete protrusion of rectum (procidentia) through anal canal. It is most commonly occurring in elderly age but rarely can occur in young age. Incarceration rarely complicates the chronically progressive form of full thickness rectal prolapse. We report the case of 38-year-old men who underwent emergency surgery for incarcerated rectal prolapse. Emergency perineal rectosigmoidectomy (altemeier procedure) was performed with diverting loop sigmoid colostomy. The successful treatment of this patient illustrates the value of altemeier procedure in difficult case of bowel incarceration.

Keywords: Procidentia, Incarceration, Rectal prolapse, Altemeiers

INTRODUCTION

Coming out of rectum beyond anus is called rectal prolapse.[1] Complete or full thickness rectal prolapse is protrusion of entire rectal wall through the anal canal; it is called an occult (internal) rectal prolapse or rectal intussusception. Rectal wall prolapse but not beyond anus is called internal intussception.

Full thickness rectal prolapse is complete rectal prolapse / sigmoid colon.it is different from mucosal prolapse.[2]

Disease progresses as during initial stages it is spontaneously reducible but as progression occurs it is manually reducible and finally irreducible.

But as disease progresses the blood supply can be hampered any time and rectal wall can be incarcerated/strangulated, for which surgery is indicated.

CASE REPORT

A 38-year-old year old male presented with full thickness complete rectal prolapse since 1 day associated with pain. Past history of chronic constipation relieved on medication, passes on stool on straining, no relevant family history noted, on clinical examination, per rectal examination.

Full thickness rectal prolapse with peripheral oedema does not reduce on trendelberg position /manual reduction. With overlying mucosa hyperaemic, on digital rectal examination no active bleeding noted, on investigation, blood investigations were within normal limits.

After admission multiple trials given for reduction with glycerine mgso4 application in trendelenberg position still reduction not possible patient underwent emergency surgery for procidentia.

Figure 1: Complete full thickness rectal prolapse.

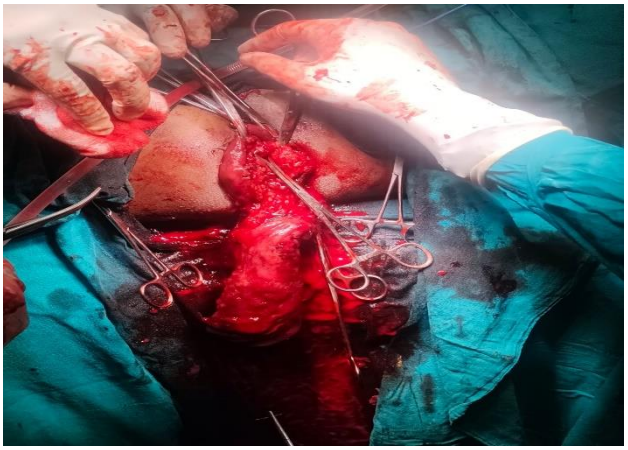

Figure 2: Altemeier procedure perineal rectosigmoidectomy.

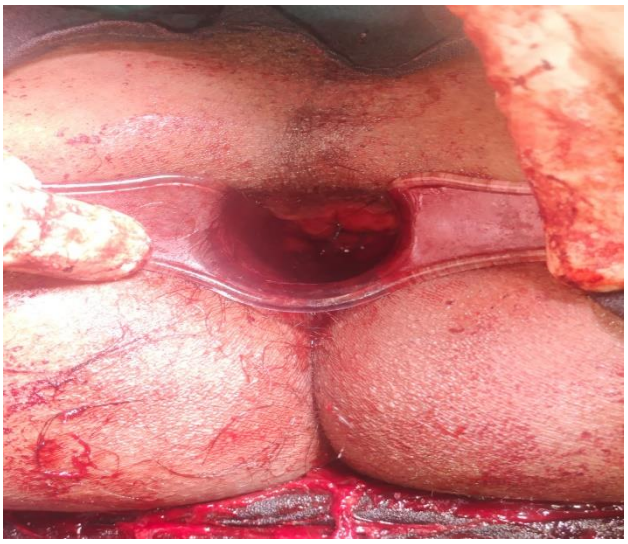

Figure 3: Anal mucosa to sigmoid mucosa interrupted stitch in circular manner.

Under general anaesthesia lithotomy position given and manual reduction trial given 2 to 3 times with lignocaine gel then intra op decision made to go for perineal-rectosigmoidectomy with sigmoid colostomy, reductant prolapsed rectum excised by making a circular incision above dentate line and rectum ,distal sigmoid removed through cautery, excised rectum with distal sigmoid colon sent for histopathological examination, mucosa of sigmoid colon stitched with anal mucosa 5 cm above dentate line with vicryl 1 rb in simple interrupted manner in circular manner.

Follow up

Patient been visiting OPD for consecutive visits; on per rectal examination anal tone seems to be normal; colostomy functioning normal; patient undergone stoma closure after 6 weeks; now patient passing stool normally.

DISCUSSION

The prevailing theories are those of sliding herniation and progressive internal intussusception. Chronic or, less frequently, acute abdominal straining is present in most cases.[3] In addition, both pathologies coexist with different anatomical and physiological features (patulous anus, incontinence) and common predisposing factors (straining, constipation).[4]

The most usual form of rectal prolapse is the chronic course of the disorder which permits selective use of investigative tools like sigmoidoscopy, video-proctography or, more rarely, physiologic studies such as anal manometry. It is evident that all diagnostic efforts are practically omitted in the rare scenario of incarcerated or strangulated RP, where urgent surgical treatment becomes a priorit.[5] A wide spectrum of operative procedures are available mainly for elective cases.

They are categorized as resective, fixative or a combination of both in order to achieve 2 goals: anatomical repositioning of the bowel and improvement of the function of the anorectal complex. The approach may be either abdominal or perineal. The selection of the appropriate procedure primarily depends on the patient's clinical data adjusted to the operator's experience and personal preference.

Abdominal approaches are performed in patients fit enough to tolerate laparotomy as these seem to result in lower recurrence rates, perhaps with the exception of young men who cannot afford the increased risk of impotence and infertility from an abdominal operation.[6,7] In elective cases, rectopexy, using fixing material (mesh, sutures, clips), is the most popular operation with good results concerning recurrence.[8] The fixation to the presacral fascia can be done either anteriorly (Ripstein) or posteriorly. However, when constipation dominates symptomatology, usually with coexistence of a redundant

sigmoid, an anterior resection alone or in combination with rectopexy is usually preferred.

In the modern era of surgery, the above operations can be accomplished laparoscopically with minimal morbidity and mortality.[9]

When the prolapse cannot be manually reduced, a few techniques may help the bowel return to its anatomic position. Sedation, Trendelenburg position of the patient and topical application of salt and sucrose may decrease bowel oedema and enable reduction. Even the use of an elastic compression wrap has been practiced.

However, when the prolapsed bowel is incarcerated or strangulated and cannot return to its anatomic position by the measures described above, the situation becomes a surgical emergency, as was the case with our patient. Jeopardizing the bowel's viability should be avoided as gangrene significantly increases morbidity and mortality and thus, an urgent surgical intervention is always indicated.

The operation of choice is perineal proctosigmoidectomy with or without colostomy. Our male patient, with acute presentation of incarcerated Rectal prolapse, underwent emergency perineal resection as the only alternative to remove the ischemic bowel. Goligher states that irreducibility with gangrene remains one of the few indications for rectosigmoidectomy (perineal) at the present time.

Furthermore, in recent years, there has been a trend towards offering elective perineal rectosigmoidectomy in healthier younger patients especially in males.

The abdominal approaches carry an increased risk of impotence and infertility when comparing to the perineal ones. Unfortunately, the recurrence rate after the Altemeier operation is not negligible. More recent studies refer to much lower rates (3%-16%), which are still high when compared to the abdominal approaches.

In addition, restoration of continence following the operation is also unpredictable as it may result in increased soiling and frequency of defecation.

Therefore, the addition of levatorplasty to perineal rectosigmoidectomy has been suggested in order to achieve better results.

A transabdominal construction of a sigmoid loop colostomy was added aiming to protect the "difficult" hand sewn anastomosis from the fecal stream. The excessive bowel edema due to incarceration made the operator consider the anastomosis unsafe. In addition, colostomy might also have a fixing function, but, on the other hand, carries various risks and complications.

CONCLUSION

A rare case of incarcerated Rectal Prolapse in a young adult is described in our case report. The patient's successful treatment with perineal proctosigmoidectomy highlights the value of the Altemeier procedure in this emergency situation with loop colostomy. Patient's anal tone sequential in 4 weeks appears too normal with adequate contractibility. In elective cases laparoscopic as well as open rectopexy can be done.

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