

Table 1: Summary of four patients treated with TIPS for chylothorax and chylous ascites by Kikolski SG *et al*².

Etiology of Chylothorax/ Chylous Ascites	Triglyceride level (mg/dl) in pleural fluid	Triglyceride level(mg/dl) in ascitic fluid	PPG before TIPS mm/Hg	PPG after TIPS mm/Hg	Improvement in Chylothorax/ Chylous ascites	Follow up (mo)
Cirrhosis	495	585	16	11	Improved	4.1
Cirrhosis	258	271	16	9	Improved	16.4
Cirrhosis	213	-	12	3	Improved	0.6
Cirrhosis	154	186	27	8	Improved	6

thoracic duct do not address portal-hypertension, which is believed to be one of the underlying causes in patients of chylothorax with or without chylous ascites and liver cirrhosis. In these patients, ascites and TIPS may be more effective as it decreases post sinusoidal and portal pressure significantly, thereby reducing the hepatic lymph formation. In a retrospective study of chylothorax with chylous ascites in patients with cirrhosis of the liver, who were treated by TIPS, there was a significant decrease in portosystemic pressure gradient after TIPS (Table 1)². This decrease in gradient leads to a reduction of hepatic and gastrointestinal lymph flow, which decreases pressure in lymphatic channels, thereby improving chylothorax and chylous ascites. Recently a case report has described that TIPS has been successful in controlling chylothorax completely.⁵ It is possible that in our patient, repeated refilling after thoracentesis was due to a spontaneous leak which might have persisted because of portal hypertension.

In summary, this case highlights the growing evidence about massive chylothorax in patients with cirrhosis of the liver with portal hypertension. It is suspected to be due to increase lymph formation secondary to an increase in portosystemic pressure gradient. It further suggests that TIPS may be an effective treatment option in such patients with other supportive treatments like intercostal drainage, octreotide and TPN, which help in reducing lymph formation, with excellent long term outcomes.

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Irreducible Rectal Prolapse in a Patient with Anorectal Malformation: Arduous to Reduce

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Rectal prolapse is a debilitating condition, commonly seen in elderly females. However, it may be seen at any age and in both genders. Protrusion of the rectum out of the anus during defecation is the commonest symptom. Most of the time, it reduces on its own or patients can reduce it manually. Pain, bleeding per rectum, mucus discharge, constipation and faecal incontinence are the other symptoms. Rarely, a prolapsed rectum may fail to reduce. Irreducibility leads to vascular compromise, obstruction and gangrene of the prolapsed rectum and requires emergent surgical intervention. There are more than 100 different surgical interventions described for rectal prolapse. These procedures are done by abdominal, perineal or by sacral approaches. The goal of surgical intervention in an elective setting is to avoid recurrence with low morbidity.

Irreducible rectal prolapse is a rare entity and the best procedure to deal with this emergency is not well elucidated¹. In an emergency condition, protecting the life of the patient becomes the primary goal of any surgical intervention. Considering life salvage as the primary goal, a straightforward procedure to overcome the emergency is preferred. However, the best procedure to deal with such a scenario may not be easy to choose, especially when it is associated with a congenital anomaly. We describe here a case of irreducible rectal prolapse in a patient with an anorectal malformation and the management pathway we followed in the case.

Case Report

Our patient was a 35-year-old male from Haryana, India. He was admitted to the Emergency Department with complaints of mass descending per anum. The mass used to come out during defecation since childhood and he had learnt to reduce it manually by pressing it with his fingers. For the last two days, he was unable to reduce it. He had faecal incontinence with a Wexner score of 12/20. The patient was born with an anorectal malformation. A diversion colostomy was made 2 days after birth. Surgical reconstruction of the anus was done at 12 months of age and colostomy was reversed after 1 month of reconstruction of the anus. On evaluation, he had complete rectal prolapse without any features of vascular compromise (**Figure 1**). Attempts to reduce it

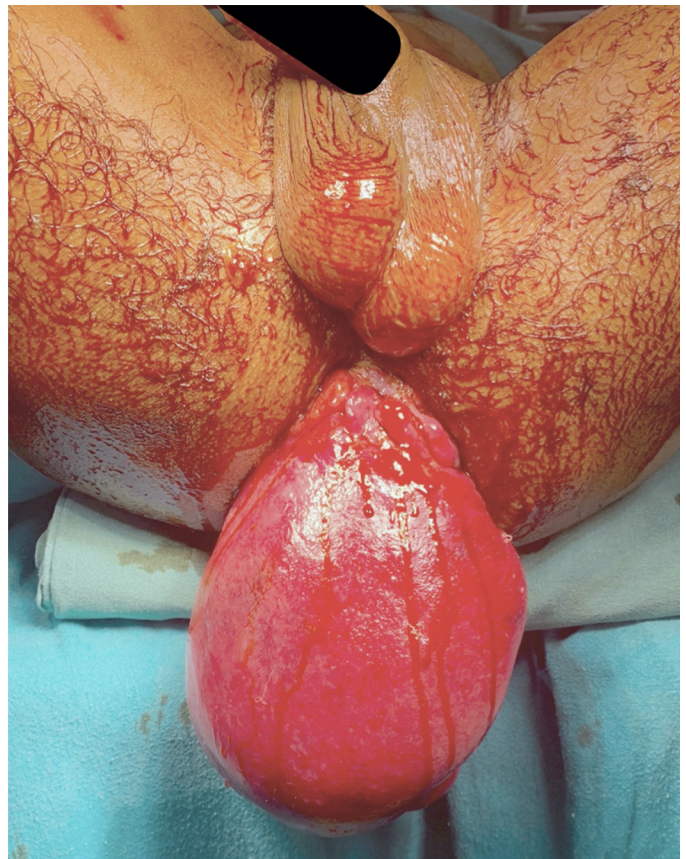


Figure 1: The full-thickness complete rectal prolapse. There was no feature of vascular compromise.

manually failed. He was taken for manual reduction of the prolapse with anal encirclement (Thiersch procedure) under laryngeal mask anaesthesia. However, the prolapse could not be reduced. He was subsequently put on general anaesthesia with endotracheal intubation with consent for possible resection and stoma. A laparotomy was performed and an attempt was made to reduce the prolapsed rectum by external pressure from the perineum and internal traction from within the pelvis. However, this attempt of internal reduction also failed. Finally, a perineal proctosigmoidectomy (Altemeier's procedure) was performed. The rectal wall was incised across its full thickness and sectioned just above the dentate line. The prolapsed rectum and sigmoid colon were resected (**Figure 2**) and a manual coloanal anastomosis was made. A diversion colostomy was done. The patient made an uneventful recovery and was discharged on the sixth postoperative day. At two months of follow up, he is doing fine and waiting for reversal of the stoma.

Discussion

This case highlights the need to be cognizant of various techniques available for a surgical condition. Rectal prolapse in itself is not a common disease. So, the availability of expertise may be scarce and more so in an emergent situation. In our routine practice, the preferred procedures for rectal prolapse are either laparoscopic repair with prosthetic mesh or a Delorme procedure. In the present case initially, our plan was manual reduction of the prolapse with anal encirclement (Thiersch procedure) under short general anaesthesia. Simple reduction with anal encirclement is known to be associated with high recurrence. However, in view of the ongoing COVID-19 pandemic, we planned a less invasive procedure and tried to avoid endotracheal intubation. Also, the simple reduction would bridge the emergent situation and a definitive procedure could be planned electively. A few other anecdotal conservative methods like direct application of granulated table sugar, hyaluronidase or elastic compression wrap are also described to reduce oedema and facilitate reduction².

In our case, as the prolapse was not reduced after laparotomy and bimanual manoeuvre, a perineal proctosigmoidectomy was required as a salvage procedure. Perineal proctosigmoidectomy (Altemeier procedure) is an established procedure for rectal prolapse. It is associated with a recurrence rate ranging from 0-10%³. However, the procedure is inherently associated with a low colorectal anastomosis. Any leak from such anastomosis can lead to significant morbidity and mortality. Hence, the Altemeier procedure, although associated with low recurrence, is not a preferred technique for many. We adopted the Altemeier procedure as the last resort when all other attempts failed. In a situation like long-standing irreducible prolapse with vascular compromise, an Altemeier procedure would have been the first option⁴. We added a diversion colostomy as the rectum was edematous due to irreducible prolapse and the patient had a surgically constructed anus with an unknown vascular supply of the distal segment.

Another interesting aspect was that our patient had an anorectal malformation at birth, and the anus was surgically reconstructed. A surgically reconstructed



Figure 2: Resected specimen of the rectum and sigmoid colon.

anorectum or a patient with an anorectal malformation (ARM), may be inherently associated with increased risk of rectal prolapse. In patients requiring colostomy at birth, as in our case, the rectum is subjected to increased peristaltic force once the colostomy is reversed after definitive repair. The quality of perineal muscles and improper surgical techniques are other factors responsible for the appearance of prolapse after ARM surgery⁵.

Conclusion

We report a complication of rectal prolapse in a patient with a surgically constructed anus. Altemeier procedure may be the saviour in such a situation.

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Acute Hepatitis-A with COVID-19: Is it coinfection or Mere a Coincidence

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In December 2019, a cluster of pneumonia cases caused by Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), a novel virus, emerged in Wuhan, China.¹ The disease showed rapid spread globally and is recognized as a global pandemic by the World Health

Organization. Coronavirus typically presents with symptoms of viral pneumonia and primarily manifests as a pulmonary disease. However, increasing data suggests the involvement of multiple organ systems, including the gastrointestinal tract and liver, with more than 60% of patients presenting with GI symptoms and significant proportion of cases presenting with deranged liver function tests.²

Case Report

A 6 years old boy presented to the hospital with complaints of yellowish discoloration of eyes since 10 days, and high colored urine. On enquiry, there was a history of fever; present since, 10-12 days, mild to moderate grade, intermittent, and pain in abdomen since, 5 days. There was no history of cough, sore throat, breathlessness, vomiting, loose stools and no h/o jaundice in the past.

On presentation, he was vitally stable, temperature was 37.2 °C. Mild pallor and icterus was present. Abdominal examination was suggestive of right hypochondriac tenderness, with hepatomegaly, 4 cm palpable below right coastal margin, soft in consistency. There was no splenomegaly or ascites. Respiratory system examination was normal. Other systemic examinations were unremarkable.

Laboratory results are depicted in **table 1**. An abdominal sonogram revealed a mildly enlarged liver with normal echotexture. Serological tests were performed, Hepatitis A IgM was positive. In view of persistent fever during hospital stay, further evaluation was done. Urine routine/microscopy and blood culture were negative, Chest x-ray was normal. However, nasopharyngeal swab taken for the SARS CoV PCR test was positive.

The patient was managed conservatively with symptomatic treatment. He improved during the hospital stay, and fever subsided. Repeat laboratory investigation was suggestive of a decreasing trend of the liver enzymes and serum bilirubin levels. Repeat nasopharyngeal swab for SARS CoV-2 PCR test, after 10 days was negative. The patient was discharged with home quarantine for 7 days and follow-up on OPD basis. During the follow-up visit he did not have any complaints and repeat LFT was normal.