Case Study

Case Study on Solitary Rectal Ulcer Syndrome (SRUS)

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ABSTRACT

Solitary rectal ulcer syndrome (SRUS) is a chronic, benign illness of rectal mucosa. The aim of the case study was to show the treatment that can make SRUS patients stable. In the SRUS case study, a 19-year-old patient was admitted with bloating, nausea, stomach burning, mucus in the stools, and constipation symptoms, diagnosed with this symptom. Although the initial physical examination showed no abnormalities, endoscopy, the rapid urease test (positive), and colonoscopy were among the diagnostic tests that later revealed duodenal and rectal ulcers. Histological examination confirmed SRUS, which is characterized by features like fibrosis, muscle fiber development, and inflammatory cell infiltration. The patient received a course of antibiotics (Nitazoxanide and Levofloxacin), anti-inflammatory medications (Rabeprazole and Esomeprazole), and dietary alterations (using laxatives and increasing fiber intake), and patient stable. The patient was found to be consistent with, lacto-fiber, PEG-400, Isabghula, Mesalamine medication.

Keywords: SRUS, Rectal mucosa, Constipation, Endoscopy, RUT, Colonoscopy, Lactofiber.

INTRODUCTION

Solitary rectal ulcer syndrome (SRUS) is a persistent, benign condition that affects young individuals. Only 40% of the patients have ulcers; 20% have a single ulcer, and the other lesions range in size and shape from broad-based polypoid to hyperemic mucosa. Rectal prolapse patients experience discomfort during bowel movements, mucus or blood discharge from the projecting tissue (25 percent), constipation (30 to 50 percent), and anal incontinence (50 to 75 percent). There is proof that either overt or covert rectal prolapse is linked to solitary rectal ulcer syndrome (SRUS).[1] There are two different disease entities associated with rectal ulcers that are not connected to infectious colitis, inflammatory bowel disease (IBD), or cancer: solitary rectal ulcer syndrome (SRUS) and acute hemorrhagic rectal ulcer syndrome (AHRUS).Bowel problems, irregular defecation, and mucosal prolapse are frequently linked to SRUS, a chronic benign condition that is most prevalent in young adults. Abrupt major rectal bleeding is a hallmark of AHRUS, which typically affects older individuals with underlying comorbidities. According to reports, the most frequent reason for hospitalized patients' acute lower gastrointestinal bleeding is AHRUS individuals with comorbid conditions.[2] According to estimates, the prevalence of Solitary Rectal Ulcer Syndrome (SRUS) is 1 in 100,000, with males and females at any age having an equal distribution of cases. Malignancy is one of the differentials regarding a suspected case of SRUS, per a research. Furthermore, it is anticipated that by 2030, there will be approximately 2.2 million new cases and 1.1 million deaths worldwide from colorectal cancer (CRC), a 60% increase in the disease's burden.[3] Although SRUS has been documented in a number of cases in the past, it has been more frequently recorded in males in their third decade and in women in their fourth. Men and women are about equally likely to get SRUS, though, and it can happen at any age. Iran has a significant incidence of SRUS, as evidenced by the vast number of patients reported from a specialist gastrointestinal center there during the previous five years. In southern Iran, a prospective study has also shown instances of children with SRUS.[4] The Department of Gastroenterology and Hepatology at the Medical Teaching Institute, Lady Reading Hospital, Peshawar, conducted this monocentric study after obtaining the necessary consent from the institute's ethical review council. 257 individuals aged 15–70 years who had experienced lower gastrointestinal bleeding for at least a week were selected by non-probability convenient sampling for this cross-sectional descriptive research. Using the WHO sample size calculator, the sample size was determined to be 116, with a 95% confidence interval, a margin of error of 7%, a lower GI bleed proportion of 82% in a single rectal ulcer, and a proportion of 7.5% in the general population. But in order to improve the study's outcomes, we signed up 257 participants for colonoscopies.[5]

Clinical Case Presentation

An Indian male patient, 19, who had no known medical history, arrived at the hospital after experiencing bloating, nausea, burning in his stomach, mucus in his feces, and constipation for four days. He claimed to have lost weight in the previous weeks, but he was in good health overall. The patient didn't use any prescription drugs. He didn't have any favorable family background or current vacation experience. Upon physical examination, the patient seemed at ease. At a temperature of 35°C, a pulse of 79, and a blood pressure of 120/80 mmHg, he was afebrile. He

was 140 cm tall and weighed 55 kg. Rectal hemorrhage, high mucus production, lengthy, severe straining, abdominal and perineal discomfort, a sense of incomplete defecation, constipation, and seldom, rectal prolapse are among the clinical characteristics. The histological hallmarks of this illness are well described and include smooth muscle fibers that extend from the enlarged muscularis mucosa to the lumen and fibrosis that obliterates the lamina propria. In the hospital, the patient was prescribed Tab. Domstal 10 mg (Domperidone) twice daily on an empty stomach, Tab. Leon 250 mg (Levofloxacin) once daily after meals, and Tab. Nizonide 500 mg (Nitazoxanide) twice daily after meals. After one month, the patient continued to exhibit the aforementioned symptoms. At the subsequent follow-up, the patient underwent a colonoscopy and appeared for an endoscopy. The endoscopic report then revealed that the duodenum D2 had a few minor ulcers, as seen in fig.1, and the Rapid Urease Test was positive, as seen in fig. 2, suggesting a duodenal ulcer. Similar to the colonoscopy report displayed in Figures 3 and 4, it was discovered that a digital rectal exam (DRE) was conducted at the initial appointment, with normal results. Visualization of the terminal ileum up to 10 cm revealed no notable anomalies. There were no hemorrhoids, and a biopsy was performed to check for an H. pylori infection due to a big ulcer with nodules in the rectum. The remainder of the cecum, sigmoid, descending, transverse, and ascending colons showed no symptoms of illness. On inspection, the terminal ileum and IC valve were likewise found to be normal. Pending more research, the final impression was a rectal ulcer with a potential diagnosis of steroid-responsive ulcerative syndrome (SRUS).Tab. Rablet 20 mg (rabeprazole sodium) twice a day and Tab. Sompraz 40 mg (esomeprazole) were used to treat the patient's solitary rectal ulcer syndrome (SRUS). Once daily before meals, take 25 mg of Lesuride (Levosulpiride) twice a day before meals, 180 mg of Lactofiber (Ispaghula Husk + Lactitol Monohydrate) after meals, and 4k-PEG Powder (Polyethylene Glycol (PEG) 3350 + Potassium Chloride + Sodium Bicarbonate + Sodium Chloride) following supper. Following continued use of the drug mentioned above, the patient's illness is now stabilized, and he is feeling better.

1. Upper GI Endoscopy Report

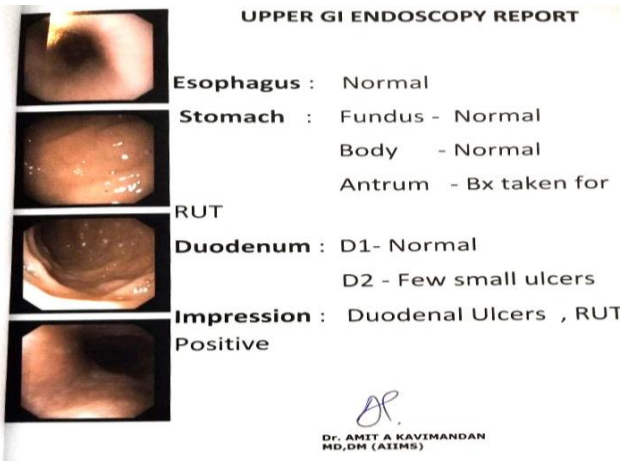

Figure 1: Endoscopy Report of the Patient

1. **Rapid Urease Test (RUT)**

Figure 2: Positive RUT Test for Gastritis and Ulcer

2. **The Colonoscopy Report**

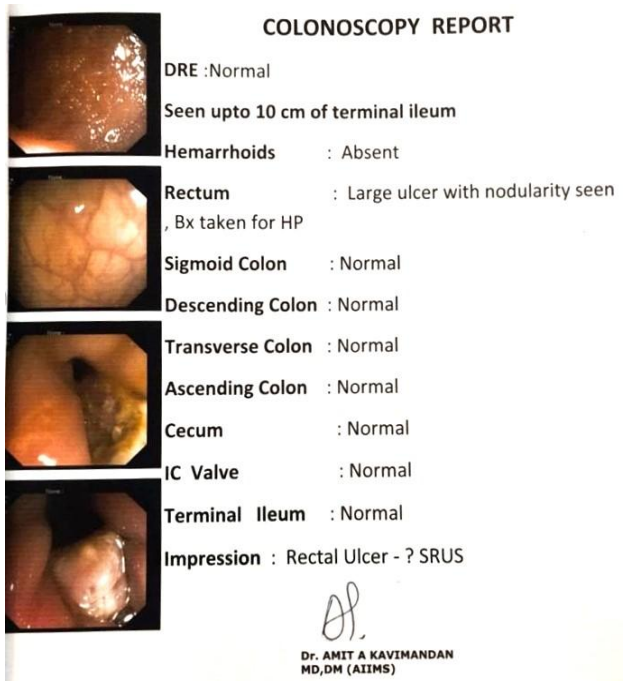

Figure 3: Colonosopy Report Visit 1 of Patient

Figure 4: Colonosopy Report Visit 2 of Patient

3. Histopathology Report

Sr.no	Description	Visit 1	Visit 2
1	Nature of Specimen	Rectal biopsy	Rectal ulcer - SRUS (Suspected Steroid-Responsive Ulcerative Syndrome)
2	Gross Examination	Specimen received as small pieces. Whole tissue embedded	Soft tissue bit, measures 0.4 x 0.3 x 0.2 cm in size
3	Microscopic Examination	Sections show fragmented ulcerated mucosa with normal glands and marked inflammatory exudation evident	- Ulceration
4	Impression	Consistent with SRUS	- Acute and chronic inflammatory cell infiltration Many dilated blood vessels

DISCUSSION

SRUS can pass for more prevalent intestinal disorders in children, like constipation or inflammatory bowel disease. Because ulceration could not be visible during endoscopy, a biopsy is necessary for diagnosis. The majority of children with SRUS respond well to a straightforward behavioral adjustment strategy. In order to prevent long-term, treatment-resistant disease throughout adulthood, it is crucial to conduct follow-up to encourage behavioral modification.[6] Alghulayqah et al., reported twenty patients with mean age of 42. 5 yr with SRUS living with Most of the patients presented with bleeding per rectum (85%), constipation (75%), and straining (50%), with a mean symptom duration of 26.7 months. The most common associated factors identified were constipation (75%), history of rectal surgery (25%), digital rectal manipulation (20%), and rectal prolapse (20%). Endoscopic findings included a single ulcer (50%) and multiple ulcers (30%); 55% had a polypoidal appearance. On histopathology, there was surface ulceration (95%), fibrosis of the lamina propria (60%), distorted architecture (55%), and muscle hypertrophy with increased mucin production (50%). Patients were treated conservatively and none required surgery.[7] Similarly, in our case a 19 year male was reported with bleeding in rectum, constipation, straining, abdominal pain, hyper acidity, incomplete evacuation, nauseu symptoms.

Darvishi et al reported the diagnosis of SRUS can usually be performed by combination of symptomatology, endoscopy, sigmoidoscopy, and histology.[8] Similarly in our case report 19 year male patient reported the lab treatment like Histopathology Report, Rapid ureas test, Endoscopy, Colonoscopy.

Forootan et al reported the treatment in 22 year patient with Drink plenty of water, Eat a fiber-rich diet, Avoid straining during bowel movements, Try a laxative, Try medications that treat ulcers: A corticosteroid cream or suppository (such as hydrocortisone) can reduce inflammation, relieve pain and help the ulcers heal.[9] Similarly in our case report 19 year male patient having the treatment by physician was drink plenty of water, lacto-fiber, PEG-400, Isabghula, Mesalamine.

CONCLUSION

At the conclusion of the sessions, we reported a notable improvement in the laboratory and physical results using the recommended treatment. Young people are susceptible to SRUS, a benign, persistent illness that is often associated with irregular or straining bowel motions. There may be several contributing causes to SRUS, even though its precise cause is unknown. Patients usually present with altered bowel habits, straining, incomplete stool passage, anorectal pain, and blood and mucus passing. The diagnosis might be made using histological, endoscopic, or clinical approaches. Treatment may be necessary, or the symptoms may resolve on their own. Therapy has been tried in a variety of ways. Many therapies are thought to be beneficial, such as surgery, fiber-enhanced behavior modification, and biofeedback.

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