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Gonadal Vein Thrombosis in Inflammatory Bowel disease – a rare cause of pain Abdomen

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ABSTRACT: Inflammatory bowel disease (IBD) is a immune mediated chronic disease which presents commonly as pain, diarrheoa, bleeding from rectum and low grade fever. Thrombotic event is not usually a suspect when dealing with a case of IBD and therefore is not thought to be the reason when there is non-resolution of pain abdomen in patient with IBD. Here we present a case of gonadal vein thrombosis in a patient with Inflammatory bowel diseasewho presentedto us for radiological evaluation for intractable pain abdomen which could not be relived.. On imaging patient was found to have left gonadal vein thrombosis along with features of active IBD. Case report highlights the rarity of condition as a cause of pain abdomen in such patients.

KEY WORDS: Inflammatory bowel disease, pain abdomen, Gonadal vein thrombosis

I. INTRODUCTION

Inflammatory bowel disease (IBD) represents a spectrum of disorders ranging from Crohn, s disease, ulcerative colitis to indeterminate colitis(1). The global Prevalence of IBD is more than 0.3% and is only rising with more than 3 million cases in USA alone and is a significant burden to healthcare both in terms of number and costs(2).

70% of patients with IBD experience abdominal pain and is the commonest presenting symptom in these patients (3). There are many etiological factors which lead to abdominal pain in a patient with IBD and pose a diagnostic challenge as non-resolution of pain itself predisposes to ill health, mental stress and exacerbation of disease. The various common causes of pain are attributed to disease process itself like inflammation in gut, strictures, fistula formation or comorbidities like appendicitis, pancreatitis, dietary intolerance, mental stress or ischemic complications and rarely thromboembolic phenomenon(4). We present a case of gonadal vein thrombosis presenting as intractable pain abdomen in a patient with IBD

II. CASE REPORT:

A 56 year old female patient presented to us for evaluation of intractable diffuse pain abdomen. She had past history of intermittent diarrhea with bouts of colicky, pain in lower right abdomen and low grade fever intermittently for 7 months. There was no history of blood in stool, urine. Her routine blood biochemistry was normal except for high CRP levels- 13ng/ml.

Contrast enhanced CT scan was done which showed areas of diffuse wall thickening of distal ilea loops along with enlarged left gonadal vein with luminal hypo dense area- thrombus (Figure 1), A MRI enterography of the abdomen was also done which several mucosal edema and thumb printing of a long segment of ileum with enlarged left gonadal vein with target sign.(Figure2). A colonoscopy was also done which revealed multiple ulcerations with mucosal congestion in the cecum and terminal ileum (Figure 3). The Biopsy taken from terminal ileum confirmed the diagnosis of Crohn's disease. Patient was put on oral analgesics and follow up.

III. DISCUSSION

Recognizing and understanding the causes of abdominal pain is essential to its management in a patient with IBD especially considering themyriad of causes in this group (5-6). After ruling out inflammation which is the commonest driver of pain in an IBD patient it is essential accurately investigate the IBD activity status. This should be followed by investigations to rule out complications of IBD (7). Gonadal Vein Thrombosis or Ovarian Vein Thrombosis is a rare but recognized complication of Inflammatory Bowel Disease (8) and has reported incidence of 1-8%(9).The pathogenesis of a thrombotic event in IBD is incompletely understood. Since no single mechanism leads to hypercoagulability it is thought to be multifactorial and a complex play of systems (10).Most common cause suggested is linked to the disease activity which causes increase in platelet activity along with increase in coagulation factors V, VII, VIII, X, XI, XII, fibrinogen and Von Will

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brand factors leading to Virchow's Triad of hyper coagulablestate thus resulting in blood stasis and endothelial injury (11-13).

In our case, partial occlusion of left renal vein thrombosiswas also noted which may or not be an independent event.

Treatment for IBD is mainly corticosteroids, immune modulators given under the cover of broad spectrum antibiotics but presence of thrombotic vein introduces fibrinolytics and thrombolytic agents for variable amount of time.

IV. CONCLUSION

This case is an example of the rare occurrence of gonadal vein thrombosis as a cause of pain in inflammatory Bowel disease and shows the rarity of presentation.

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Figures and Legends

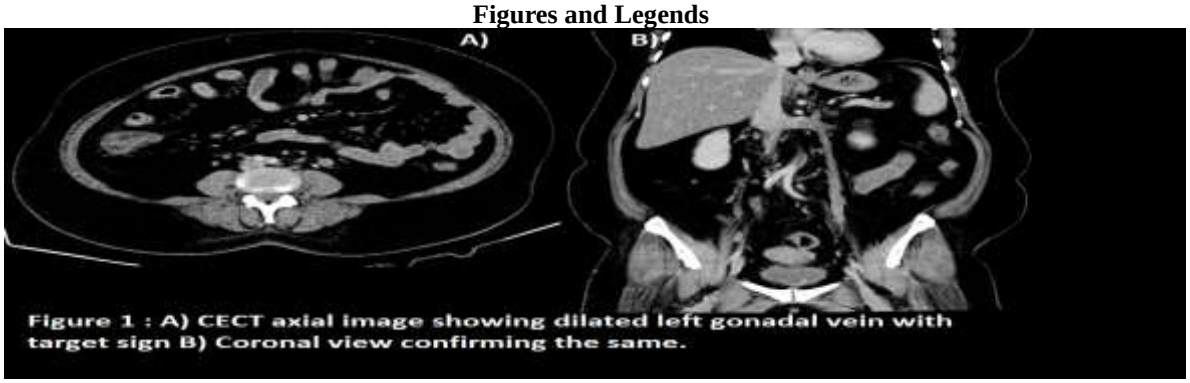

Figure 1 : A) CECT axial image showing dilated left gonadal vein with target sign B) Coronal view confirming the same.

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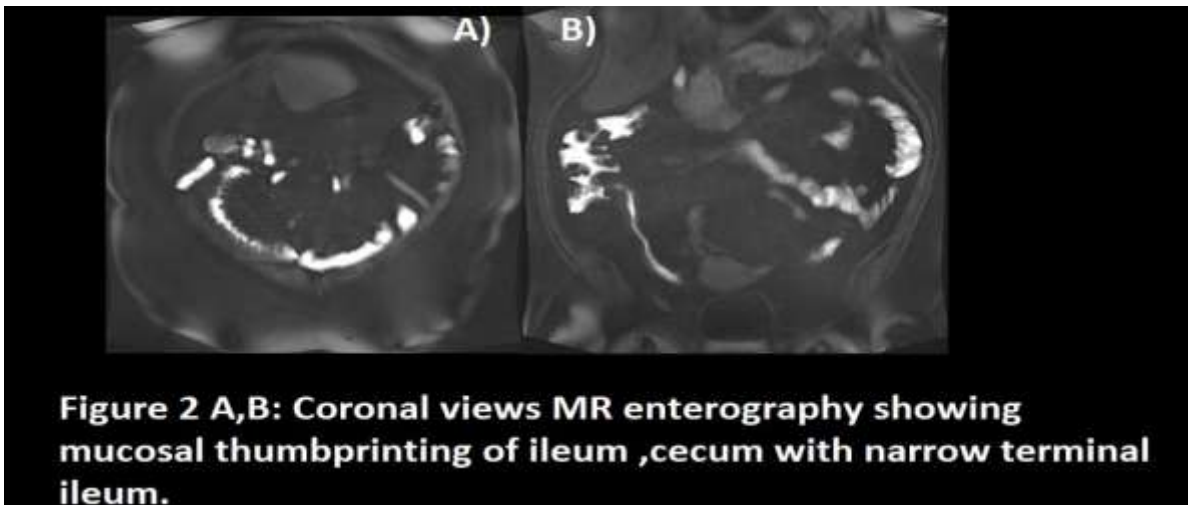

Figure 2 A,B: Coronal views MR enterography showing mucosal thumbprinting of ileum ,cecum with narrow terminal ileum.

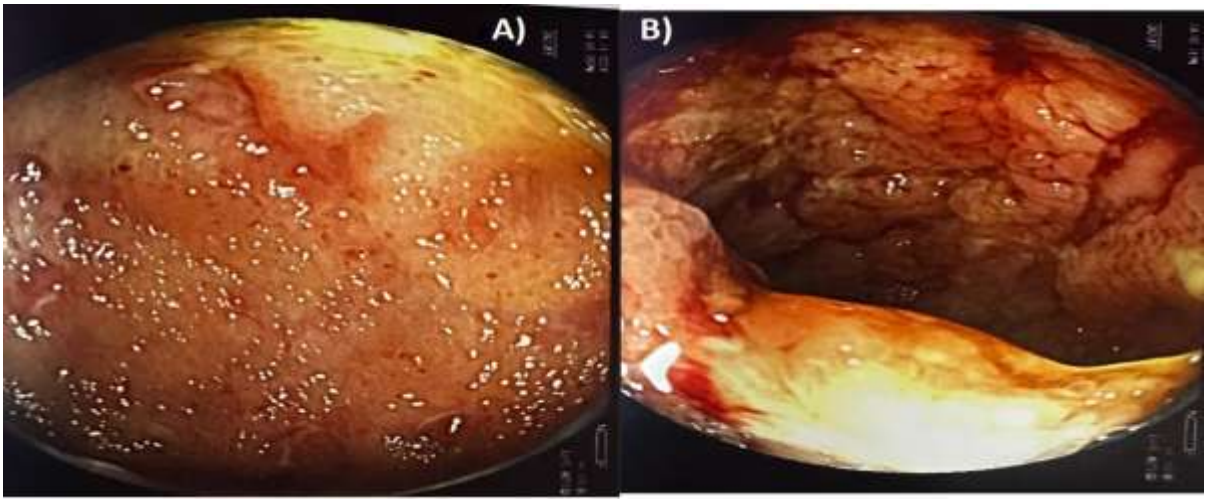

Figure 3 A,B :Colonoscopy showing inflammation in Ileum and cecum