

## Splenic Flexure Volvulus associated with Systemic Lupus Erythematosus A Case Report

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### INTRODUCTION

Volvulus of the splenic flexure (VSF) is a rare cause of intestinal obstruction (1). Patients usually present with recurrent episodes of intestinal obstruction and there is a slight female preponderance. The affected patients usually have identifiable risk factors including previous surgery involving mobilization of the splenic flexure with resultant adhesions, congenital absence of the ligamentous attachments of the splenic flexure or motility disorders affecting the colon. The treatment of VSF is definitive surgery. Although VSF has been reported in systemic sclerosis (2), an autoimmune condition, to our knowledge this is the first report of VSF occurring in Systemic Lupus Erythematosus (SLE).

### Case Report

A 20-year old female university student was admitted to the University Hospital of the West Indies with a fourth episode of abdominal distension, constipation, cramping abdominal pain and vomiting. She was on a regime of prednisone and captopril for SLE related complications including Class V nephritis (WHO) and hypertension.

During her three previous episodes of intestinal obstruction, she was reported to be comfortable and had had abdominal distension and reduced bowel sounds. Investigations included contrast computerized tomography scan of her abdomen and colonoscopy which showed no evidence of mechanical obstruction. On each occasion, she responded to non-operative treatment including nasogastric tube decompression, intravenous fluids and parenteral steroids. This led to prior clinical assessment of intestinal pseudo-obstruction associated with SLE.

On this presentation, her abdomen was non-tender despite massive distension confined mainly to the upper abdomen. Bowel sounds were present. Plain abdominal and chest radiographs revealed a markedly elevated left hemidiaphragm, and a single loop of dilated large intestine filling the entire abdomen (Figs. 1, 2). There was stool in the ascending colon and transverse colon. A diagnosis of intestinal obstruction due to a volvulus was made and a rigid proctosigmoidoscopy was normal up to 25 cm. A single con-



Fig. 1: Erect chest X-ray showing elevated left hemidiaphragm with grossly dilated splenic flexure (arrow) and air-filled ascending colon.

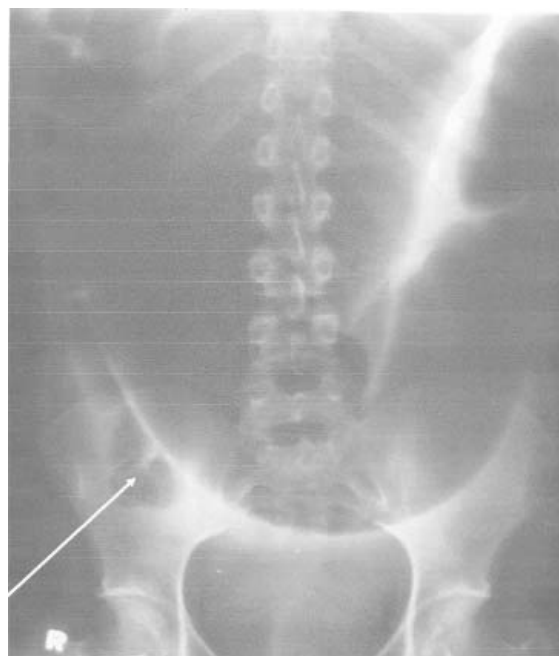


Fig. 2: Abdominal X-ray showing dilated loop of colon with its convexity pointing towards the right iliac fossa. This overlies dilated caecum and ascending colon (arrow)

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Fig. 3: Barium enema showing free flow of contrast from rectum through to proximal descending colon with abrupt cut-off at the splenic flexure.

trast enema obtained showed a bird beak cut-off of the proximal descending colon with normal sigmoid colon (Fig. 3).

At laparotomy, the splenic flexure was found to be grossly dilated and had undergone a 180° counterclockwise rotation causing mechanical obstruction but no evidence of ischaemia. The dilated segment was resected and a primary anastomosis performed between the transverse and descending colon. Her postoperative recovery was uncomplicated and the patient was discharged on the sixth postoperative day. One year after discharge she has not had recurrent symptoms.

## DISCUSSION

Gastrointestinal manifestations are common in SLE occurring in up to 50% of cases (3) and pose diagnostic challenges to surgeons because of the high steroid dependency of these patients. Although VSF has been reported in systemic sclerosis (2), this is the first report of VSF occurring in a patient with SLE. The case presented shares multiple clinical and radiological similarities with the cases described in the literature. This was her fourth attack of intestinal obstruction (1, 4). Radiologically, she had the described features of splenic

flexure volvulus both on plain abdominal and chest radiographs (Figs. 1, 2) including elevated left hemidiaphragm and a bean shaped dilated loop of large intestine representing the splenic flexure with air and stool in the caecum, ascending and transverse colon (5). The diagnosis was confirmed on barium enema (Fig. 3) which revealed similar findings as those described by Mindelzun and Stone (6). The named ligamentous attachments of her splenic flexure were absent at laparotomy and it is likely that this patient had chronic recurrent volvulus, the most common presentation of VSF (5), rather than chronic intestinal pseudo-obstruction, an uncommon but well described intestinal manifestation of SLE (7). Chronic intestinal pseudo-obstruction is defined as the presence of clinical features suggestive of intestinal obstruction but without organic obstruction, namely absence of bowel sounds, presence of multiple air fluid levels on plain abdominal X-rays and the exclusion of an organic lesion by imaging or surgical procedure (7). As SLE is common among female hospital patients in Jamaica (8), clinicians caring for these patients should be alerted to the occurrence of VSF as a rare cause of intestinal obstruction in this population. This is also important given that VSF complicating primary chronic intestinal pseudo-obstruction has been reported (9).

The treatment is laparotomy with resection of the involved segment and primary anastomosis. Non-resective surgery has been performed particularly in the extremes of age to reduce operative risk (9, 10). Both, however, provide excellent results in the short and intermediate term (11).

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