CASE REPORT

Mesenteric venous thrombosis: a rare cause of abdominal pain

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Abstract

Thromboembolic phenomena is very common in Western countries. In Pakistan, deep venous thrombosis, mesenteric venous thrombosis, pulmonary embolism are quite rare. Mesenteric venous thrombosis (MVT) is a rare cause of acute abdominal pain. Here we report the successful outcome of conservative management for a young man suffered from superior mesenteric venous thrombosis.

Keywords: Thrombosis, Mesenteric Venous Thrombosis, Acute Abdomen

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Introduction:

Mesenteric venous thrombosis (MVT) is a rare condition that accounts for 5 to 15 percent of all mesenteric ischemic events[1]. It usually involves the superior mesenteric vein and rarely the inferior mesenteric vein. Since the diagnosis is difficult therefore it is often delayed, and most cases are identified either at laparotomy or at autopsy. Availability and improvements in imaging techniques have led to early diagnosis, and a better idea of the cause of mesenteric venous thrombosis has led to changes in treatment.

Here we report the successful outcome of conservative management for a young man who suffered from superior mesenteric venous thrombosis.

Case report:

A 35 years old gentleman, resident of Quetta was admitted in our hospital with the presenting complaint of generalized abdominal pain for the last 10 days along with persistent ausea and occasional vomiting. There was no history of alteration of bowel habits, rectal bleeding, weight loss or loss of appetite. For these complaints he was managed in a hospital at his home town with no improvement even after a week of treatment, after which he finally reported in our hospital. Here, on examination he had pyrexia of 99.6°F and abdomen was normal. CT Scan abdomen showed extensive thrombosis in the tributaries of Superior mesenteric vein extending up to portal vein.

He was commenced on Enoxaprin (Clexane) 60µg twice daily subcutaneously. Simultaneously Warfarin was started. In two days time there was a remarkable improvement in abdominal pain. Haematological workup was done later. He is still in follow up.

Discussion:

MVT is a rare cause of acute abdominal pain. It is classified as either primary or secondary. When an etiological factor is found, the patient is said to have secondary MVT. Prompt diagnosis, resuscitation and aggressive treatment are essential to lower the risks of morbidity and mortality. Even in recent years reported mortality is 20% - 50%[2].

Besides other causes, usually mesenteric ischemia is associated with thrombophilic state (Antithrombin III deficiency, Protein C deficiency, Protein S deficiency, Factor V Leiden, G20210A mutation in prothrombin gene) or advanced malignancy. MVT is also associated with abdominal operations (Spleenectomy, Sclerotherapy of

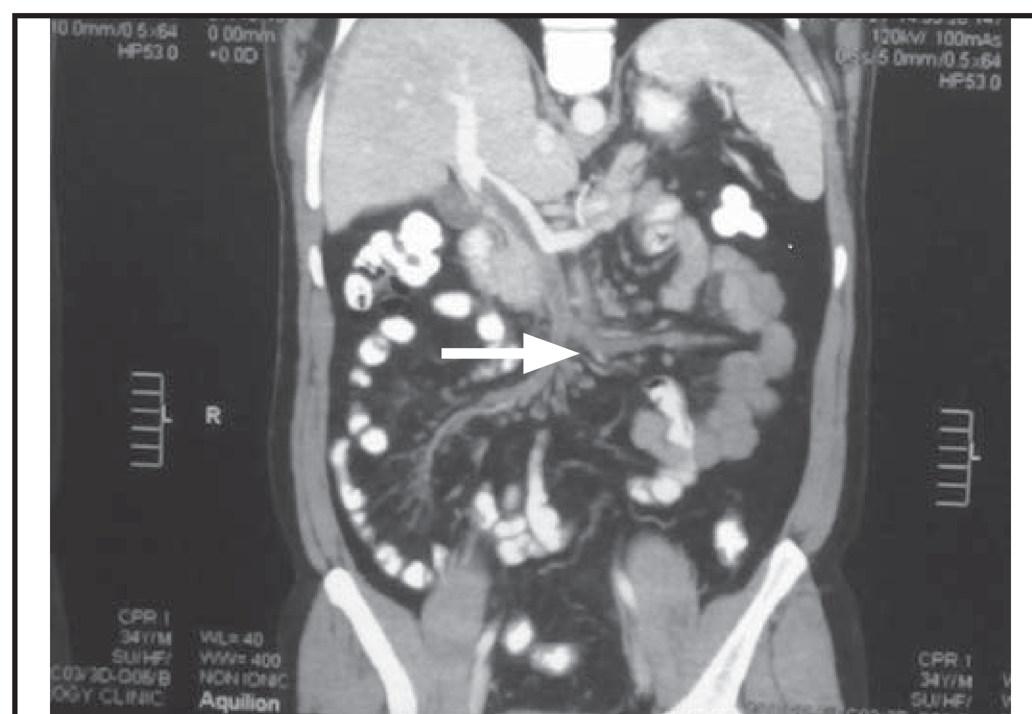

Figure 1: *Filling defect is seen in Superior Mesenteric Vein*

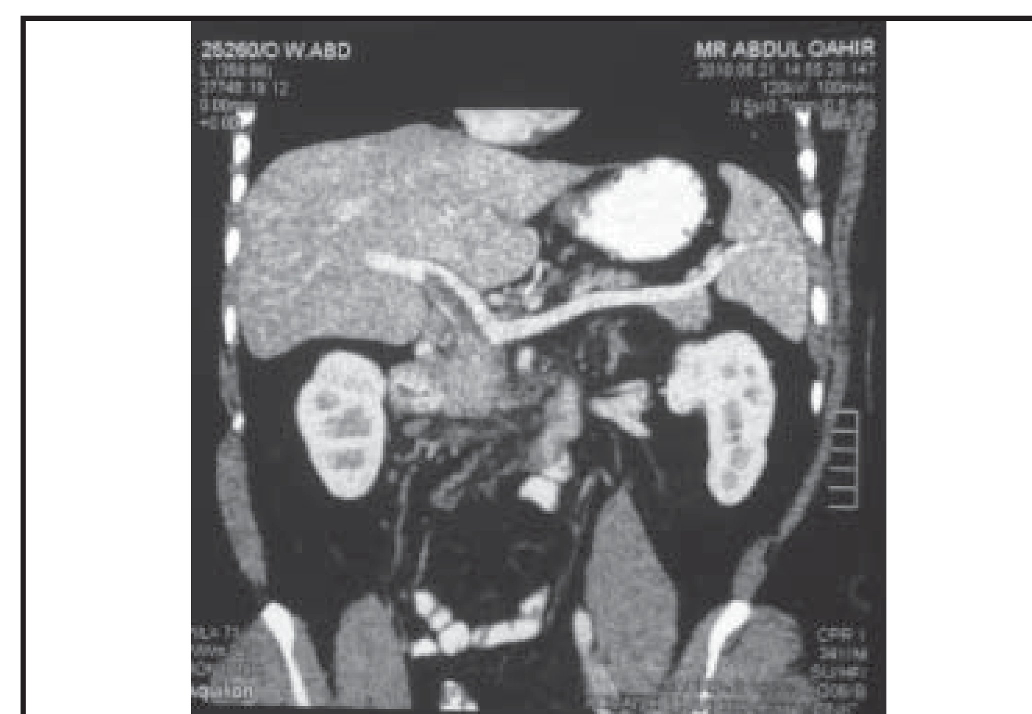

Figure 2: *Thrombus extending into the Portal Vein*

Oesophageal Varices etc)[3].

Patient may present with abdominal pain, vomiting, distention, haematemesis, bleeding per rectum and fever. Complexity of symptoms and the course of the disease is directly proportional to the severity of disease i.e number of vessels occluded and size of thrombus.

Routine blood tests are not helpful in the diagnosis of mesenteric venous thrombosis. The presence of increased serum lactate levels and metabolic acidosis may serve to identify patients with established bowel infarction, but this is a late finding. Abdominal X-rays are abnormal in 50 to 75 percent of patients but have findings specific for bowel ischemia in only 5 percent. Blunt, semi opaque indentations of the bowel lumen (thumb-printing) are indicative of mucosal edema, whereas gas in the wall of the bowel (pneumatosis intestinalis) or in the portal vein and free peritoneal air are characteristic of bowel infarction as a result of mesenteric venous thrombosis.

Previously transabdominal color doppler ultrasonography was used to demonstrate thrombus in the mesenteric veins, but computed tomography (CT) is the test of choice for suspected cases of mesenteric venous thrombosis[4].

Recently Endoscopy with duplex doppler ultrasonography is used to detect thrombosis of mesenteric vessels[5].

Treatment of MVT involves either anticoagulation alone or in combination with surgery if indicated[6]. Immediate heparinization has been shown to reduce recurrence and progression of the disease[7]. Thrombolysis with streptokinase, urokinase and tissue plasminogen activator (t-PA) has also been used in treatment of MVT with selective catheterization[8].

Surgical intervention is indicated if clinical presentation is suggestive of peritonitis and/or bowel infarction.Since MVT is an uncommon cause of abdominal pain a high index of suspicion for this condition is required for early diagnosis and better management.

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