Mesenteric Vein Thrombosis after Laparoscopic Right Colectomy-A Case Report and Literature Review

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Abstract

Introduction: Mesenteric vein thrombosis (MVT) is a rare but serious condition. Prompt diagnosis and early treatment are essential to avoid high mortality from this condition. Very few cases of this complication after laparoscopic colon resection have been reported in the literature.

Presentation of case: We report superior mesenteric vein thrombosis in a 69-year old male after uneventful laparoscopic right colectomy for colon cancer. Incidental diagnosis of MVT was made on staging CT scan of abdomen one month after surgery. He was promptly treated with anticoagulation which avoided adverse outcomes. The patient was asymptomatic throughout the course of the disease.

Discussion: There is significant lack of its awareness about this disease in medical fraternity due to very low incidence. Additionally, signs and symptoms are often confusing especially in patients who have had recent surgery. Pain abdomen, nausea, and diarrhea are most common symptoms. High degree of clinical suspicion by treating physician is the key to early diagnosis. Undiagnosed patients have high mortality due to consequent mesenteric ischemia and sepsis. CT angiography is the most important diagnostic test and prompt systemic anticoagulation is the treatment of choice.

Conclusion: Awareness of this condition and a high index of suspicion are two most important attributes in fighting with this deadly and rare complication after laparoscopic colon resection.

Keywords: Mesenteric vein; rombosis/laparoscopy; Diagnosis

Introduction

Superior mesenteric vein thrombosis (MVT) is a potentiallC iio lap hq tc i — is Mpƒc ƒ± ns tq ˚py; I li

Figure 1: Arrow shows partially occluding thrombus in superior mesenteric vein.

Figure 2: Arrow shows non occluding thrombus in superior mesenteric vein.

Review of Literature and Discussion

e incidence of MVT is lower than mesenteric artery thrombosis (MAT).1 MVT accounts for approximately 5-15% of mesenteric ischemic events. It was f rst recognized as a cause of mesenteric ischemia by Warren [1]. ere is a wide range of predisposing factors for this condition. Based on etiology MVT is classif ed as primary or secondary [2]. When an obvious cause is found, the disease is labeled as primary.3 Currently primary MVT accounts for one-third of cases.4 More cases are falling into the category of secondary MVT as our ability to diagnose causes of MVT improve. Based on chronicity, MVT is also classif ed as acute, subacute and chronic. Approximately three-fourth cases have known etiology [1,3,4]. Factors postulated in

resource intensive and o en unnecessary [3]. CTA, and MRA may also reveal evidence of bowel ischemia however dif cult unless pneumatosis or frank perforation of bowel has already occurred [4].

Once the diagnosis is conf rmedž systemic anticoagulation should be started.4 It has shown to improve survival and reduce the risk of recurrence [4]. Supportive measures include nasogastric suction, f uid resuscitation, and bowel rest [3,16]. Further treatment is based on the extent of thrombosis and associated bowel ischemia [16]. Transmural ischemia of small bowel needs immediate surgical resection of involved segment. If the extensive length of bowel is involved with patches of ischemia, resection of clearly ischemic bowel and observation of doubtful area with a second look within 24-48 hours is appropriate. is is the desirable approach in order to preserve as much length of the small bowel as possible to avoid short bowel syndrome [16]. Intraoperative thrombectomy has been def ned in literature for acute severe MVT with imminent bowel ischemia [17]. On another hand, the role of thrombolysis is controversial. e trans catheter thrombolysis via the percutaneous trans hepatic or trans jugular intrahepatic route, or indirectly via superior mesenteric artery access are among other treatment modalities suggested, albeit with higher risk of bleeding. e mortality rate among patients with acute mesenteric venous thrombosis ranges from 20 to 50%. [14,16,18].

rough literature search, we could only f nd only two cases of MVT a er laparoscopic colectomy. Two larger series reported MVT a er colectomy for IBD. In the current case, we encountered non-occlusive superior MVT [18,19]. It was diagnosed incidentally and had no clinical suspicion of mesenteric ischemia. Outpatient m n gestient sk hig alb ˝ b t sf ag c-t- cp co s V