Acute Superior Mesenteric Venous Thrombosis Results in High Rates of Readmission and Morbidity

Journal of Vascular Surgery: Venous and Lymphatic Disorders - Swift Anticoagulation, Early Recognition of Bowel Necrosis Key in Lowering Mortality Rates for Mesenteric Venous Thrombosis

ROSEMONT, Ill., Sept. 2, 2020 – The largest single-institution study of acute mesenteric venous thrombosis unveils risk factors for bowel loss as well as patient condition one year after treatment. The study results were reported in the September edition of the Journal of Vascular Surgery: Venous and Lymphatic Disorders.

“Acute mesenteric venous thrombosis (MVT) is a rare and poorly understood entity, representing six to nine percent of all cases of acute mesenteric ischemia,” said first author Elizabeth Andraska, MD, MS, University of Pittsburgh.

Patients with MVT are typically treated with anticoagulation, hydration and bowel rest. A subset of patients unfortunately will require bowel resection for necrosis, and one of the aims of the study was to identify risk factors for the procedure.

Dr. Andraska and colleagues retrospectively studied 121 patients treated at their institution between 2008 and 2018. They subsequently compared the clinical course of the 98 patients treated medically and 19 patients who underwent bowel resection (four patients who underwent endovascular therapy were excluded). One patient of the entire cohort died during hospitalization (following bowel resection).

Compared to those treated medically, patients requiring bowel resection more often had:

- Hypercoagulable disorder (53 percent vs. 21 percent, P=.003)
- Lactic acidosis (47 percent vs. 11 percent, P<.001)
- Leukocytosis (89 percent vs. 35 percent, P<.001)
- Thickened bowel segment on CT imaging (100 percent vs. 49 percent, P<.001)

Results at one year following treatment revealed:
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- 89 percent of those treated medically were alive as were all 18 of the survivors of bowel resection (95 percent total)
- Readmission rates for abdominal pain were as high as 58 percent in the bowel resection group
- Persistent venous congestion on CT scan was as high as 47 percent (bowel resection group and 43 percent for those treated medically)

“In our study, the presence of a hypercoagulable state was a significant predictor of bowel ischemia requiring resection in this setting,” said Dr. Andraska. “Notably, these patients suffer more aggressive disease.”

“Our in-hospital mortality rate was low compared to some previously published series possibly owing to swift initiation of anticoagulation, triage and operative intervention, if necessary,” she added.

Abdominal pain and readmission remain relatively high within the first year following admission for MVT. This appears due to post-thrombotic changes evident in the mesenteric venous circulation identifiable on follow up CT imaging.

To review the full study please visit http://b.link/JVS-VL/MESENTERIC . For more information on The Journal of Vascular Surgery: Venous and Lymphatic Disorders visit https://www.jvsvenous.org/ .

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