Mesenteric ischemia is a condition resulting from decreased blood supply to the mesenteric organs, primarily the small and large intestines. This can happen acutely (suddenly) from a blood clot or chronically (over time) from atherosclerosis (plaque buildup in the arteries).

Acute mesenteric ischemia requires fast diagnosis to help prevent tissue death. CT angiography (CTA) is a CT scan with contrast timed to show the arteries. CTA is usually appropriate to confirm the diagnosis of mesenteric ischemia. CT with contrast in venous timing may be appropriate in conjunction with the CTA to assess the veins and organs, such as the bowel, for signs of tissue death. Catheter-based arteriography may be appropriate in addition to CTA to diagnose a blocked artery, treat the blockage if appropriate, or help plan for surgery. MR angiography (MRA) may be appropriate if CTA is not performed but takes longer and provides less information than CTA. Ultrasound and abdominal radiography (x-ray) have limited use in acute mesenteric ischemia situations.

Chronic mesenteric ischemia is less time sensitive. Although ultrasound may be appropriate to screen patients, CTA and MRA are the most appropriate diagnostic tools and can be used together to provide complementary views of blood vessels. CTA is the most accurate imaging test for grading the degree of artery blockages. CT with contrast in venous timing may be performed in conjunction with the initial CTA scan to assess the veins and organs, such as the bowel. Catheter-based angiography may be appropriate to guide treatment and determine whether surgery is required.

See the full appropriateness criteria for this topic at https://acsearch.acr.org/docs/70909/Narrative/.