American Gastroenterological Association Medical Position Statement: Guidelines on Intestinal Ischemia

This document presents the official recommendations of the American Gastroenterological Association (AGA) on intestinal ischemia. It was approved by the Clinical Practice and Practice Economics Committee on September 25, 1999, and by the AGA Governing Board on November 15, 1999.

The spectrum of ischemic bowel disease comprises acute and chronic mesenteric ischemia and colon ischemia and includes arterial as well as venous disorders. Each form of intestinal ischemia requires its own plan of diagnosis and management. In the absence of randomized controlled trials or similar forms of scientific inquiry, the diagnostic and therapeutic algorithms presented here are based on descriptive series and clinical experience.

Acute Mesenteric Ischemia: Algorithm 1

Acute mesenteric ischemia (AMI) can result from emboli, arterial and venous thrombi, or vasoconstriction secondary to low flow. Mortality rates reported over the last 15 years remain as high as they did more than 70 years ago and average 71%, with a range of 59%–93%. Diagnosis before intestinal infarction is the single most important factor to improve these poor results. Relief of persistent vasoconstriction, which is the cause of nonocclusive mesenteric ischemia and occurs in association with occlusive forms of ischemia, is another important factor. The objectives of this guideline for the management of AMI are early identification of patients who require prompt and aggressive evaluation in addition to delineation of the optimal form of therapy for each patient.

Patients at risk for AMI, as defined in the technical review, who have abdominal pain severe enough to call to the attention of a physician, whose pain persists for more than 2 or 3 hours, and whose clinical picture does not suggest some other abdominal problem, e.g., cholecystitis or diverticulitis, should be evaluated and treated for AMI according to the following algorithm (Algorithm 1).

Chronic Mesenteric Ischemia: Algorithm 2

Chronic mesenteric ischemia (CMI; "intestinal angina") is characterized by postprandial abdominal pain and marked weight loss and is caused by repeated transient episodes of inadequate intestinal blood flow, usually provoked by the increased metabolic demands associated with digestion. Because angiographic evidence of partial or complete occlusions of one or more of the major splanchnic vessels is common in the absence of CMI, such abnormalities alone are not sufficient to diagnose CMI. Many tests have been proposed for use in diagnosing CMI, but none has proven sufficiently sensitive or specific. The objectives of this guideline are to help the physician identify patients with CMI and determine the best means of re-establishing adequate intestinal blood flow (Algorithm 2).

Colon Ischemia: Algorithm 3

Colon ischemia (CI) is the most common form of intestinal ischemia and comprises a spectrum of disorders: (1) reversible colopathy, (2) transient colitis, (3) chronic colitis, (4) stricture, (5) gangrene, and (6) fulminant universal colitis. Most cases of CI do not have a recognizable cause; however, CI is seen in a number of predisposing conditions. Any patient who develops mild-to-moderate abdominal pain, diarrhea, or lower intestinal bleeding with minimal-to-moderate abdominal tenderness, especially one who has one of the predisposing conditions, should be investigated for CI. Diagnosis is by colonoscopy or barium enema, and mesenteric angiography plays little role in diagnosis unless only the right side of the colon is affected or the individual has more pain than is customarily seen with CI. Most cases of CI resolve spontaneously, but surgery may be required acutely, subacutely, or in chronic cases as described in the technical review (Algorithm 3).

This Medical Position Statement has been endorsed in principle by the American Society of Gastrointestinal Endoscopy and the American College of Gastroenterology.

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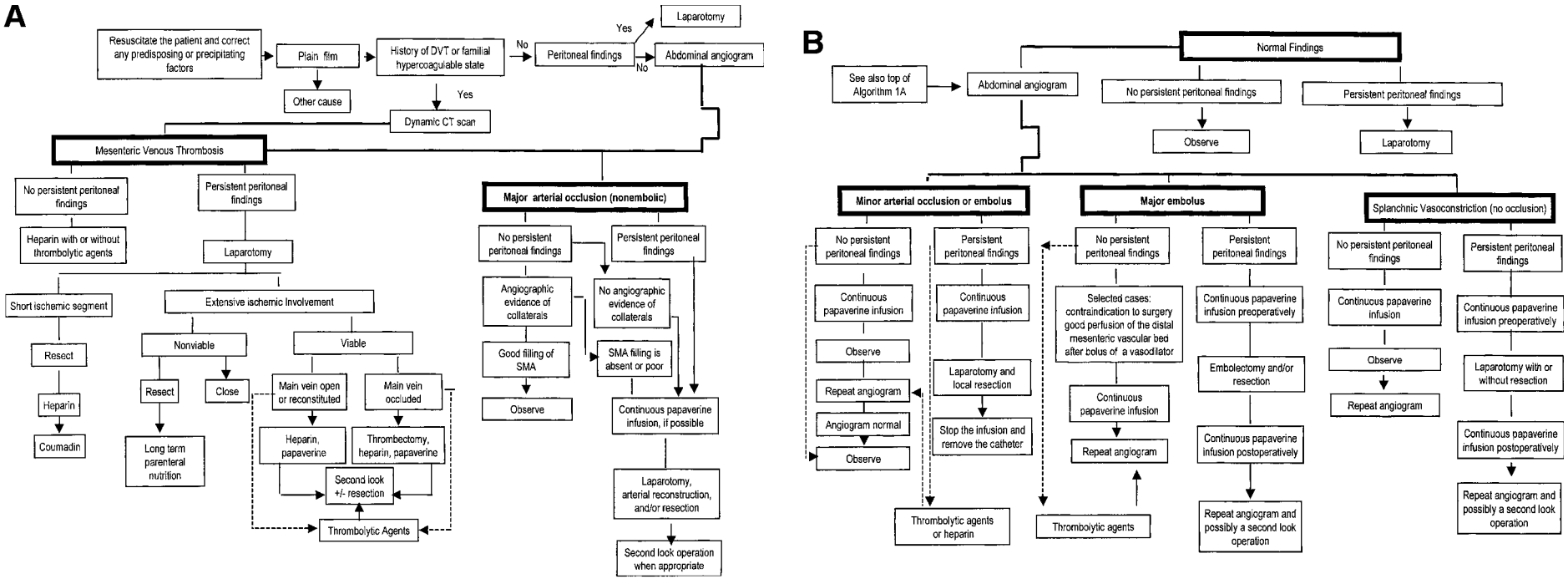
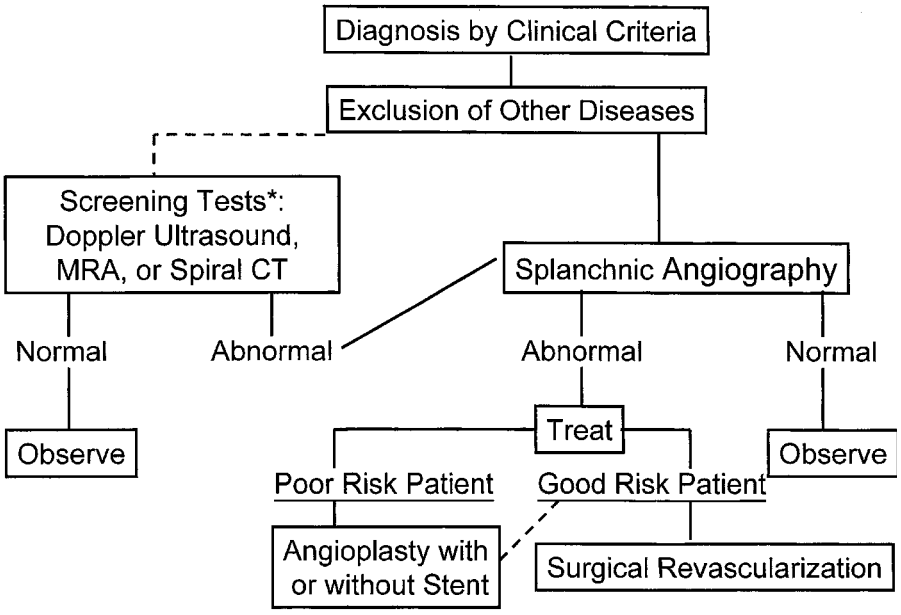
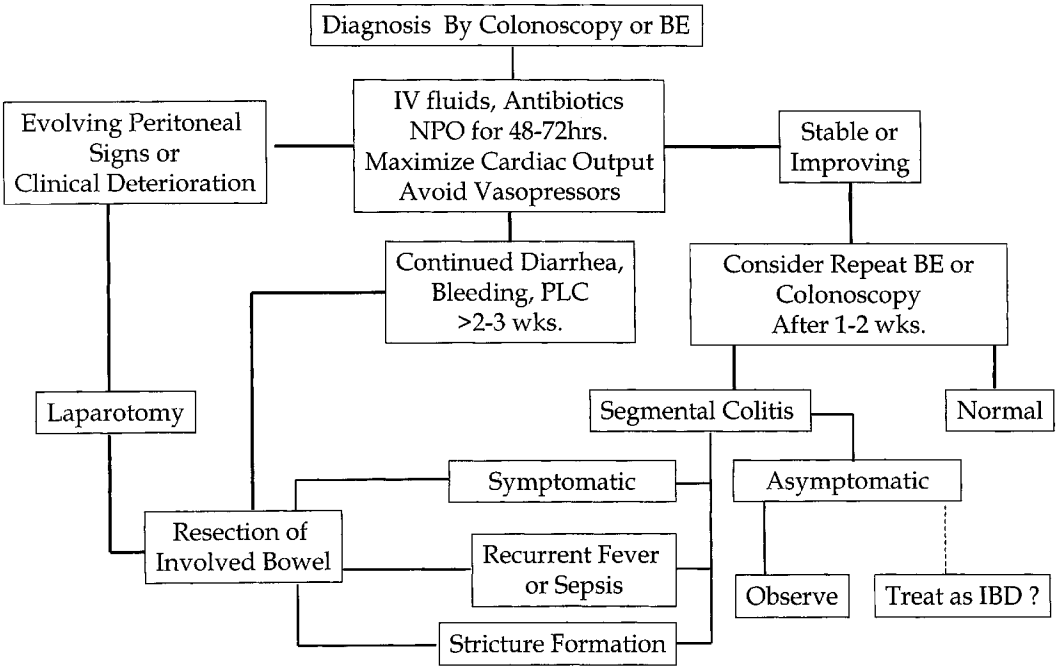


Algorithm 1. (*A* and *B*) Diagnosis and treatment of of intestinal ischemia. *Solid lines* indicate accepted management plan; dashed lines indicate alternate management plan. DVT, deep vein thrombosis; SMA, superior mesenteric artery.



Algorithm 2. Management of CMI. *Solid lines* indicate accepted management plan; *dashed lines* indicate alternate management plan. MRA, magnetic resonance angiography; CT, computerized tomography.



Algorithm 3. Management of colon ischemia. *Solid lines* indicate accepted management plan; *dashed lines* indicate alternate management plan. BE, barium enema; NPO, nothing by mouth; IV, intravenous; PLC, protein-losing colopathy; IBD, inflammatory bowel disease.