Ischemic Disorders of the Gastrointestinal Tract

Sujai Jalaj, MD Daniel S. Mishkin, MD, CM, FRCP(C)

You receive the following call from the emergency department:

A 65-year-old man recently started on digoxin for atrial fibrillation awoke from sleep at 3 AM with severe periumbilical pain associated with diarrhea that later became bloody. The pain was knife like and severe enough that he knew he needed to seek medical attention immediately. The patient is sweaty and uncomfortable with an irregular heart rate of 100 beats per minute, complaining of generalized abdominal pain. His abdomen is tender but without peritoneal findings.

The fear of vascular emergencies is due to the fact that time is of the essence as a lack of blood flow can lead to intestinal ischemia and subsequent gangrene. To improve clinical outcomes, an appropriate clinical suspicion and knowledge of the vascular anatomy supplying the gastrointestinal (GI) tract will help to provide a better understanding and differentiation of the various presentations associated with these events. Therefore, this chapter will review the vascular anatomy of the mesenteric