

# Aortoenteric Fistulas

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## AE fistula – Definition:

“Development of an abnormal communication between the abdominal aorta or an abdominal aorta graft and a portion of the bowel, usually the fourth portion of the duodenum.”

Source: [www.medilexicon.com](http://www.medilexicon.com)

# AE fistula – Primary vs. Secondary:

## Primary AE fistulas

- Typically arise from athero-sclerotic aortic aneurysm
- Infectious aortitis (2° syphilis or tuberculosis), which is usually found in other parts of the world

## Secondary AE fistulas

- Most often due to pressure necrosis or graft infection of a prosthetic aortic graft
- Other causes: penetrating ulcers, trauma, tumor invasion, radiation therapy, or penetrating foreign bodies

Source: Jutabha, R., Jensen, D. “Uncommon causes of upper GI bleeding.” uptodate.com, May, 2010.

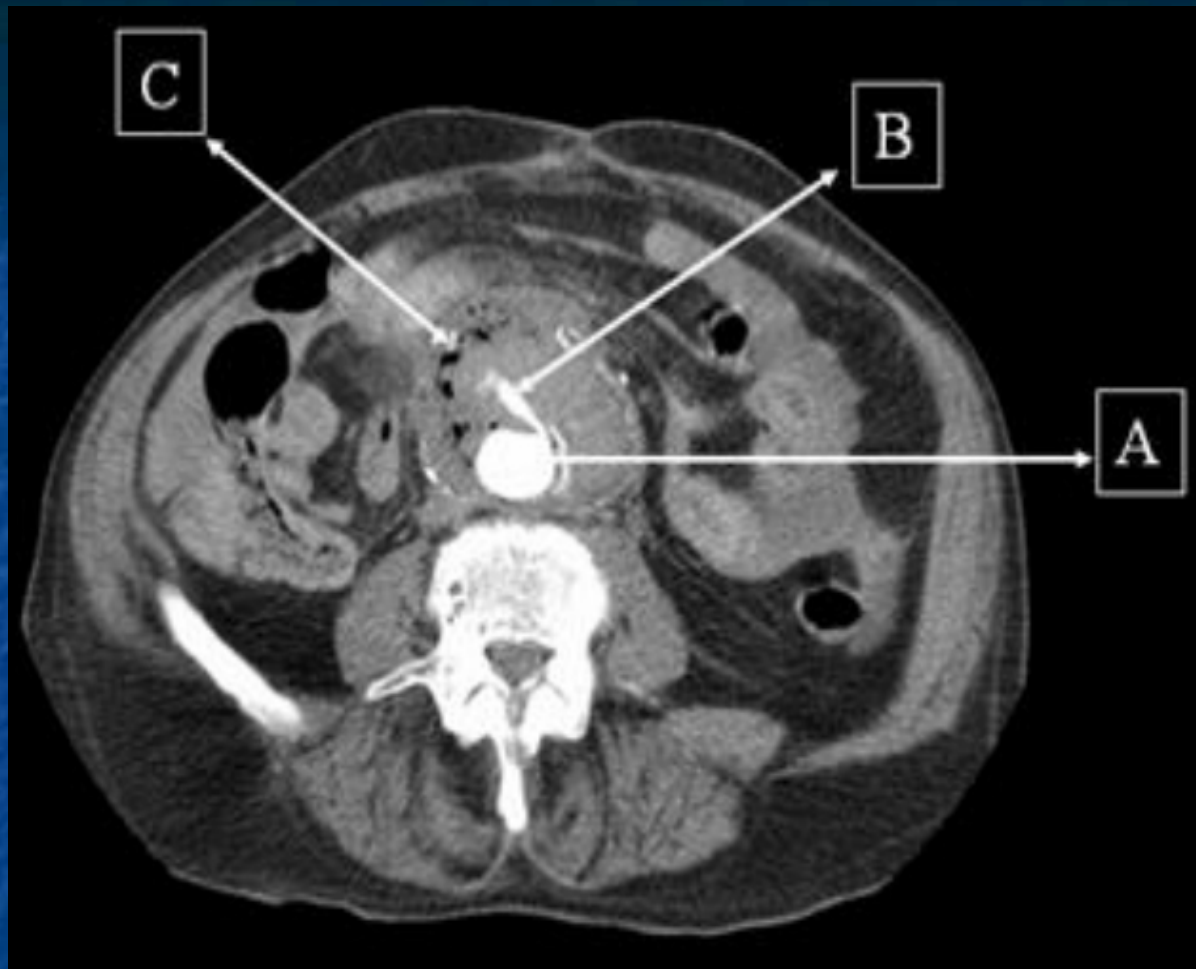
## AE fistula – Clinical Findings:

- Classic triad of GI bleed, abdominal pain, pulsatile abdominal mass occurs in < 25% of patients. Most present with a sentinel GI bleed – either hematemesis and/or hematochezia, followed by massive GI bleeding.
- Patients with an infected graft may also exhibit signs and symptoms consistent with sepsis.
- Hypotension and tachycardia, therefore, can be a combination of hypovolemia from blood loss and sepsis from an infected graft.

# AE fistula – Diagnosis:

- AE fistula must be considered in any patient with GI bleeding and a history of an aortic graft placement.
- Exploratory laparotomy is indicated for patients with a suspected AE fistula and ongoing massive bleeding. CT imaging may be an useful adjunct in stable patients.
- Endoscopy is the procedure of choice for stable patients with upper GI bleeding in whom the diagnosis is unclear.

Source: Jutabha, R., Jensen, D. “Uncommon causes of upper GI bleeding.” uptodate.com, May, 2010.



**Figure 1:** Contrast CT scan demonstrating the aorta (A) with extravasation of contrast (B) and a large collection (C) around it with trapped air suggestive of infection.

Source: MacDougall, L., Painter, J. et al. "Aorto-enteric fistulas: a cause of gastrointestinal bleeding not to be missed." *British Journal of Medical Practitioners*. Volume 3, Number 2, June 2010.

# AE fistula – Treatment:

- Treatment priority for unstable patients with suspected or known AE fistulas should be early volume resuscitation and blood transfusion.
- Antibiotics are indicated for suspected concomitant sepsis from an infected aortic graft.
- Definitive treatment is emergent surgery to repair the aneurysm or replace the defective graft.