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### A Giant Gastric Ulcer Caused by Mucormycosis Infection in a Patient with Renal Transplantation

A 70-year-old man underwent cadaver renal transplantation. One month after transplantation, he had persistent low-grade fever, cough, and progressive epigastric pain with intermittent tarry stool. Panendoscopy revealed a giant gastric ulcer in the greater curvature of stomach (Figure 1a), with dirty debris and a deep hemorrhagic base (Figure 1b). Gastric biopsy confirmed a diagnosis of mucormycosis, with multiple nonseptate right-angled branched fungal hyphae on the hematoxylin-eosin stain (Figure 2). The silver stain showed characteristic vascular and epithelial invasion in the gastric mucosa (Figure 3). The fungus culture was negative. Amphotericin B infusion was started immediately after endoscopy. The patient had massive ulcer bleeding on the fifth day after endoscopy, and died ten days later without autopsy.

The endoscopic appearance of gastric mucormycosis may suggest the diagnosis, which is confirmed by a gastric biopsy (1–3) demonstrating the typical characteristics of the condition. Culture of mucormycosis is usually negative (1). Amphotericin B infusion is an appropriate treatment (1,2,4). However, a large ulcer such as this carries a high risk of massive ulcer bleeding, so that amphotericin B treatment is of limited efficacy in preventing a fatal outcome. Surgical intervention with gastric resection might be considered as an alternative in such cases.

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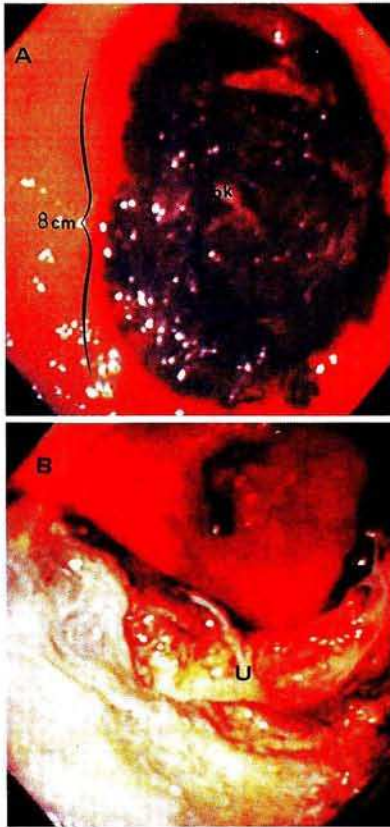
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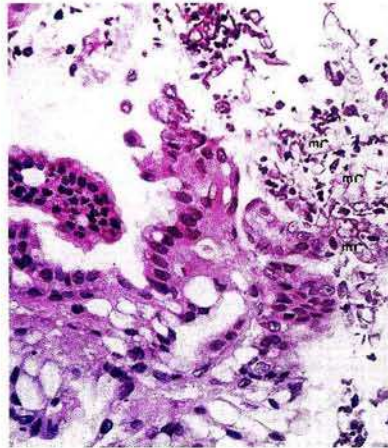
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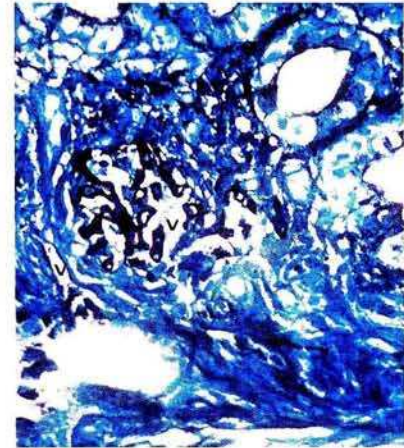
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**Figure 1A:** The giant ulcer caused by the mucormycosis was over 8 cm in size (curved bracket). **B** The deep ulcer base (B) had a hemorrhagic edge (U).



**Figure 2:** The gastric biopsy showed the typical nonseptate, right-angled (mr) branched hyphae of mucormycosis and inflammation of the gastric epithelium (hematoxylin-eosin, original magnification  $\times 400$ ).



**Figure 3:** The silver stain (original magnification  $\times 400$ ) further confirmed the diagnosis of mucormycosis, showing the characteristic vascular (V) and epithelial (E) invasion. The fungal organism is deeply stained (M).

#### References

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