



Gastrointestinal Mucormycosis Presenting as Emphysematous Gastritis After Stem Cell Transplant for Myeloma

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A 63-year-old man with a second stem cell transplant for refractory multiple myeloma, with resultant neutropenia, presented with persistent tachycardia, tachypnea, and leukocytosis, despite negative blood cultures, fungal markers, and empiric treatment with vancomycin, piperacillin-tazobactam, and micafungin. On examination, the patient had mild tenderness to palpation in the epigastrium. Computed tomography (CT), looking for occult infection, demonstrated air in the stomach wall, short gastric veins, and gastrosplenic ligament concerning for emphysematous gastritis (Figure 1).

Diagnostic upper endoscopy was performed, which demonstrated an erythematous stomach, covered in large majority by a thick, black eschar and necrotic debris, primarily in the gastric body and fundus (Supplemental Figure 1; available online at <http://www.mayoclinicproceedings.org>), with

relative sparing of the antral and prepyloric area (Supplemental Figure 2; available at <http://www.mayoclinicproceedings.org>) and without clear perforation. This debris in some areas had a small amount of white cottony pseudomembranous overlay (Figure 2). Endoscopic appearance was consistent with mold, and culture data demonstrated growth of a rhizomucor species. Despite aggressive treatment and eventual gastrectomy with intraperitoneal amphotericin, the patient died.

Emphysematous gastritis is an unusual finding and has been rarely associated with invasive mucormycosis,¹ a fungal infection primarily in the immunosuppressed. Diagnosis is often elusive because of poor noninvasive diagnostic tests and overall rarity. Little guidance exists for clinicians, but case series suggest that amphotericin, isavuconazole, and surgical management be used. Despite this, mortality approaches 100%.²



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FIGURE 1. Computed tomography with air in the gastric wall (axial view).



FIGURE 2. Black eschar with white cottony pseudomembranous overlay in prepyloric region.

SUPPLEMENTAL ONLINE MATERIAL

Supplemental material can be found online at <http://www.mayoclinicproceedings.org>. Supplemental material attached to journal articles has not been edited, and the authors take responsibility for the accuracy of all data.

Potential Competing Interests: The authors report no competing interests.

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