LETTER TO EDITOR

A Rare Case of Invasive Gastric Candidiasis Causing Perforation and Peritonitis

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Sir,

Perforation peritonitis is one of the most common presenting complaints in surgery emergency. Fungal microorganism as a cause of gastric perforation is rare. It is mostly seen in immunocompromised and debilitated patients [1].

A 50 year old male patient was admitted in emergency surgery ward with complaints of abdominal pain and high grade fever for two days. There was no past history of diabetes, tuberculosis, surgery or any drug intake. On general examination patient was febrile with pulse rate 126/min. and blood pressure 94/60 mm Hg. Abdominal examination revealed distention with guarding and rigidity present all over abdomen. X-ray chest showed gas under right side of diaphragm. Laboratory investigations showed hemoglobin 9.6 gm%, total leucocyte count 12,800/cumm, differential leucocyte count P91 L6 M2 E1 B0 and blood sugar 118 gm/dl. Serological tests for HIV, HBsAg and HCV were non reactive. On explorative laparotomy, a gastric perforation identified along anterior wall of stomach near greater curvature measuring 2x2 cm. Perforation was repaired and its margin was sent for histopathological examination.

Sections examined show necrosis, odema and inflammation in the gastric wall. Pseudohyphae and budding yeast forms of fungus identified invading the gastric wall (Fig. 1a) which show positive staining with PAS stain (Fig. 1b). Peritoneal fluid culture revealed colonies of *Candida albicans*. Diagnosis of gastric perforation caused by candida infection was made. Antifungal therapy was started and patient responded well to treatment. Patient was discharged after 2 weeks and was on regular follow up.

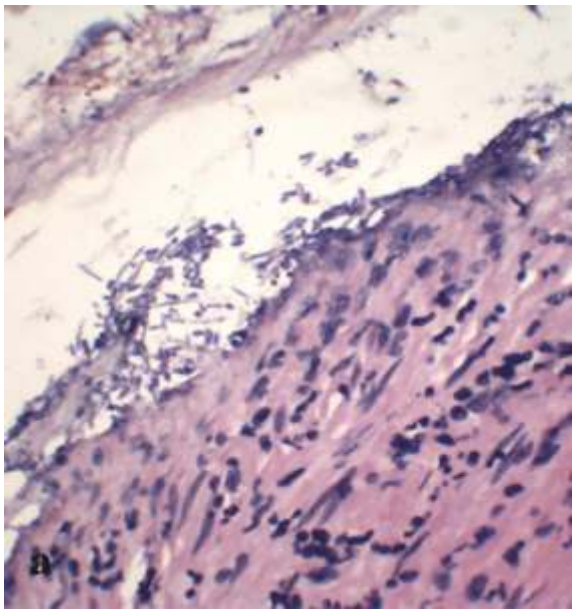

Fig. 1a: Microphotograph showing Pseudohyphae in Gastric Perforation Margin along with Necrosis and Inflammatory Reaction in the Wall (H&E X400)

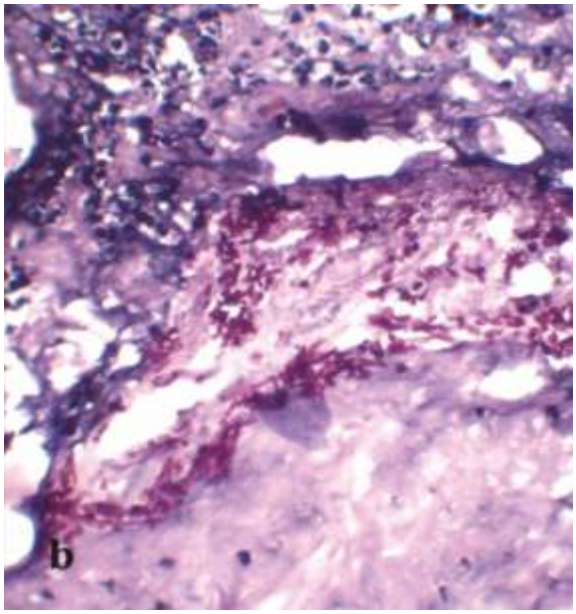

Fig. 1b: Microphotograph showing PAS Positive Pseudohyphae and Budding Yeast of Candida Invading Gastric Wall (PAS X400)

Candida is a ubiquitous fungus – found normally in gut of healthy individuals. In normal circumstances, the level of candida is controlled by low gastric pH and beneficial bacteria [2]. Factors promoting proliferation of fungus are diabetes mellitus, HIV, malignant tumours, transplant surgery, gastric surgery, long term steroid therapy, anticancer chemotherapy and other immunosuppressants, overuse of antacids and antibiotics but infrequent in immuno-competent individuals [1,3,4]. The criterion for histological diagnosis was the demonstration of infiltration of tissue or ulcer slough by yeasts and pseudohyphae. Invasive candidial infection results in extensive tissue necrosis and ulceration leading to perforation peritonitis [3]. Invasive candidiasis is characterized clinically by fever and shock along with low blood pressure, an elevated heart rate, respiratory distress and multiorgan failure [2].

This case emphasizes that rare fungal etiology for gastric perforation should be kept in mind even in immunocompetent patients. Gastric candidiasis is a serious medical condition that requires an immediate medical attention. Early detection is necessary to start adequate treatment in time to significantly reduce the mortality.

References:

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