Radionuclide scans are very sensitive in detecting blood loss from the GI tract but are less accurate than angiography in localizing the site of bleeding. The role of intravenous contrast-enhanced spiral CT in evaluation of GI bleed is well known. However, it is not sensitive enough to show a bleeding point. Demonstrating a diverticulum or leiomyoma by spiral CT is not proof enough to assume that it is the cause for the bleed. Ettore et al. observed that combining spiral CT scan with angiography helps in localizing GI bleeding. In our experience we found that the technique not only localizes but also diagnoses the cause of bleeding. We feel that SMA injection will be most appropriate as a majority of GI bleeds with negative upper and lower GI endoscopy arise in the small bowel territory.

In conclusion, intra-arterial contrast-enhanced spiral CT scan of abdomen with the angiography catheter in the SMA holds promise as a useful adjunct to SMA angiogram in localizing and diagnosing the cause for obscure GI bleed. The exact localization of the lesion by this technique is valuable in areas like the distal duodenum and the duodenojejunal flexure, which are relatively difficult areas to access during surgery and are likely to be overlooked.

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Gastric mucormycosis
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Systemic mucormycosis is a rare fatal fungal infection that usually involves the nasopharynx. Gastrointestinal mucormycosis is rare, occurring in immunocompromised conditions and with advanced malignancies. We report a 35-year-old man, an alcoholic, admitted with acute abdomen. Endoscopy revealed an ulcerated plaque-like lesion in the stomach. Histology revealed mucormycosis of the stomach. The patient successfully underwent treatment with amphotericin-B. [Indian J Gastroenterol 2002; 21:231-232]

Key words: Phycomycosis, stomach

Mucormycosis is a rare fungal infection that usually involves the head and neck. Gastrointestinal mucormycosis is usually associated with immunocompromised states and advanced malignancies, and has a very high mortality.

A 35-year-old alcoholic man presented with upper abdominal pain, vomiting and fever of 5 days' duration. On examination, he was toxic, dehydrated, with guarding in the upper abdomen and tender hepatomegaly.

Ultrasoundography revealed two hypoechoic lesions, 4 cm x 4 cm each, in the left lobe of the liver, with homogenous appearance. The liver parenchyma was otherwise normal. The findings were confirmed on CT scan. CT scan brain was normal. Blood sugar, serum amylase and creatinine were normal and HIV antibody was negative. Upper GI endoscopy (Fig) revealed an ulcerated plaque-like lesion, about 4 cm x 4 cm, with raised edges and necrotic slough, situated 5 cm distal to the cardia on the lesser curvature. Histology of edge biopsies revealed mucormycosis of the stomach with invasion of the mucosal propria.

Amphotericin-B was given in a dose of 1 mg/Kg/day for 15 days. The patient improved and was discharged after 15 days. Repeat CT and check gastroscopy performed after 2 months revealed complete regression of the lesions.

Phycomycetes are a class of Eumycetes (true fungi) and are characterized by lack of septations. Phycomycete infection occurs initially by inhalation of spores or implantation in broken skin or mucous membrane. In disseminated disease mycotic emboli may establish metastatic infection in distant organs. The most characteristic histologic feature of the disease is local invasion of blood vessels by fungal organisms, producing acute vasculitis, thrombus formation and ischemic necrosis of surrounding tissue.1

Fig: Endoscopic appearance of plaque-like lesion in body of stomach
Rhinocerebral involvement is most common and is the form most often associated with diabetes. Localized gastrointestinal mycosis involves the ileum, colon and stomach but is rarely diagnosed antemortem; a majority of patients have disseminated involvement including the central nervous system and lungs. Immunocompromised states, diabetes, advanced malignancies and metabolic derangements, mainly acidosis, are the usual predisposing conditions.

GI mucormycosis is due to ingestion of fungal spores of infected sputum. Secondary infection of pre-existing ulcers or disseminated disease may also occur. Bleeding ulcers, perforation, peritonitis, shock and death are the usual progression. Associated mesenteric vein thrombosis has been described. In clinically suspicious cases, gastric aspirate, stool and blood should be cultured on Sabouraud’s medium. Endoscopically accessible lesions should be biopsied early in the course of the disease. An intradermal skin test using autoclaved culture extracts, and a complement fixation test with such an extract as antigen have also been described.

Amphotericin-B is the drug of choice; other antifungal agents are of no use. Continued use of antibiotics, corticosteroids and immunosuppressive drugs must be re-evaluated. Surgical excision of the infected necrotic tissue, adequate drainage of sinuses, debridement of devitalized tissue and thorough peritoneal lavage must be performed whenever possible. With few exceptions, gastrointestinal mycosis pursues a fulminating and rapidly fatal course.

Increased awareness and early recognition of gastrointestinal mycosis and initiation of specific therapeutic measures are the key to improved survival of these patients.

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Non-gestational choriocarcinoma
In small intestine

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Choriocarcinoma most commonly arises from intrauterine trophoblastic tissue; non-gestational choriocarcinoma is rare. We report a 22-year-old married woman with non-gestational choriocarcinoma in the small intestine. Partial resection of the jejunum and ileum was done, followed by chemotherapy. She was well one year later. [Indian J Gastroenterol 2002;21:232-233]

Key words: Extranodal choriocarcinoma

Choriocarcinoma, a malignant tumor usually of placental origin, is of two types, gestational and non-gestational; the latter is rare. Non-gestational choriocarcinoma occurs in the lungs, mediastinum, kidney and intestines. Gastrointestinal choriocarcinoma is rare; the first case was reported by Sears in 1933 and only a few cases have been reported in since. They are more common in the stomach than have also been reported in the esophagus, small and large intestine.

A 22-year-old married lady was admitted with high-grade fever for 15 days and pain and distension of the abdomen for 2 days. Examination showed marked pallor with pedal edema, distention of abdomen, and absent bowel sounds. Gynecological examination did not reveal any abnormality, though she had history of amenorrhea for four months.

Investigations: Microcytic hypochromic anemia (hemoglobin 2.0 g/dL), urine normal. Skigram showed air under the diaphragm with multiple air-fluid levels. Chest X-ray was normal. Ultrasonography of pelvic organs showed endometrial hyperplasia without any other significant abnormality.

Exploratory laparotomy revealed peritonitis. The jejunum and ileum showed multiple submucosal nodules of 1 cm size with two perforations, each 2 cm x 2 cm, on the antimesenteric border. Liver and spleen were normal. Abdominal lymph nodes were not enlarged and no peritoneal seedlings were detected. Exploration of the pelvic organs revealed normal sized uterus and ovaries; both the fallopian tubes were unremarkable. Partial resection of the jejunum and ileum was done and anastomosis performed. The specimen showed ulcers of irregular shape, measuring 3 cm x 2.5 cm and 3 cm x 2 cm, with perforation in their centers. The edge of the ulcers was irregularly thickened and the margins were reddish brown and necrotic. There were multiple small submucosal nodules around these ulcers. Representative sections from the ulcers and nodules revealed groups of neoplastic syncytiotrophoblastic and multinucleated syncytiotrophoblastic cells with bizarre anaplastic nuclei lying in extensive areas of hemorrhagic and necrotic tissue (Fig). A diagnosis of choriocarcinoma in the small intestine was made.

The patient was reassessed. There was no evidence of primary malignancy in the genital organs or metastasis at other sites on clinical examination and imaging. Dilatation and curettage was performed to rule out gestational choriocarcinoma. Microscopic examination of the curetted secretory endometrium without evidence of trophoblastic tissue. Serum HCG levels were elevated immediate postoperatively but showed declining trends on follow-up. The patient was put on chemotherapy (EMA-CO regimen) and followed-up regularly with serum HCG levels. She was well till one year after surgery.

232 Indian Journal of Gastroenterology 2002 Vol 21 November - December