Nonalcoholic steatohepatitis, obesity and celiac disease

Celiac disease characteristically presents with diarrhea and weight loss. Weight gain resulting in obesity in the presence of malabsorption seems paradoxical. We report a woman who was found to have nonalcoholic steatohepatitis (NASH), which was attributed to obesity, but had, in addition, celiac disease.

A 35-year-old woman presented with epigastric burning, abdominal bloating and generalized weakness since 6 months. There was no past or family medical history. On examination she was obese, with BMI of 36.7. She had mild paller, but no jaundice, lymphadenopathy or pedal edema. Liver was palpable 6 cm below the costal margin (span 17 cm); spleen was not palpable. Systemic examination was otherwise normal.

Investigations: hemoglobin 10.4 g/dL, hematocrit 35%, peripheral film suggestive of iron deficiency anemia. Blood glucose, renal function and lipid profile were normal. Biochemical liver tests were normal except for moderate increase in serum AST (118 U/L; normal 5-40) and ALT (121 U/L; normal 5-35). Serology for hepatitis B and C viruses and autoimmune markers were negative. Ultrasonography showed hepatomegaly with increased echotexture. On subsequent occasions, hypertransaminasemia persisted. Needle biopsy of the liver revealed prominent fatty changes, aggregates of parenchymal inflammatory cells, mild fibrosis with minimal inflammatory infiltrate at some of the portal spaces, consistent with NASH.

Despite compliance to a balanced hypocaloric diet and moderate daily exercise program, with iron supplementation and achieving weight reduction, liver enzymes and hemoglobin did not reach normal values. In addition she started having mild abdominal cramps and diarrhea. Stools were largevolume with no blood or mucus, frequency being 6-9/day. At this time she recalled 2 episodes of diarrhea each year for the past 3 years. Microscopic examination of stool specimen was normal, and no pathogen was identified on stool culture. Hemoglobin was 9 g/dL with hypochromic microcytic picture on smear. Serum iron was 18 mg/dL and total iron-binding capacity 614 mg/dL (normal 250-400). Liver tests revealed AST 117 U/L and ALT 98 U/L.

In view of persistent iron deficiency anemia anti tTG (IgA) was done, which was positive. Endoscopic duodenal biopsy revealed villous atrophy with crypt hyperplasia and lymphoplasmacytic infiltrate, consistent with celiac disease. She was put on gluten-free diet and iron supplementation. One year later her hemoglobin was 11.5 g/dL, and ALT 52 U/L and AST 47 U/L. She gained 4 Kgs weight. There were no further episodes of diarrhea.

In the presence of obesity and adult celiac disease the changes of NASH in our case could be attributed to either condition. As the values of transaminases decreased after introduction of gluten-free diet even though patient gained weight further, we suggest that celiac disease could be the cause of NASH.

In patients with celiac disease, involvement of the liver in the form of massive steatosis or nonspecific hepatitis-like changes has been reported. Abnormal AST or ALT levels are found in 19%-47% of patients; they usually normalize on a gluten-free diet. There are also reports of positive antigliadin antibody classes in patients with chronic liver diseases like primary biliary cirrhosis, autoimmune hepatitis and non-A non-B hepatitis, as well as with asymptomatic hypertransaminasemia. The pathogenetic mechanisms responsible for liver changes in adult celiac disease are not clear. No correlation has been found between nutritional status and liver function tests. Increased intestinal permeability to toxins or antigens due to chronic mucosal inflammation is a possible cause.

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References

Wandering spleen

A spleen lying in the abdomen but in a site other than the normal splenic fossa and having excessive mobility is termed a wandering spleen. This is an unusual entity.

A 13-year-old averagely built girl was admitted with several episodes of acute left lower abdominal pain and lump for the last three years. The episodes lasted for a few hours to two days. Pain was relieved spontaneously or with ingestion of analgesics. She had mild fever with one episode of pain. On examination, there was mild pallor and no lymphadenopathy. A 10 cm x 8 cm Mildly tender, freely mobile mass was present in the left lower abdomen. The mass could be pushed into the pelvic cavity as well as pulled up into the left hypochondrium.

Hemogram was normal except for hemoglobin 9.5 g/dL. Ultrasonography showed no spleen in the splenic fossa; a 13-cm-long mass simulating the spleen was present in the left iliac fossa, with compression on the left wall of the urinary bladder.

At laparotomy, the mass was confirmed to be an enlarged spleen, wrapped with omentum. Its surface had a variegated with old infarcted areas. Splenic pedicle was thin, enlarged with narrowed splenic vessels. Pelvic organs were normal. Splenectomy was performed after adhesiolysis and ligating splenic pedicle. Histology showed areas of necrosis and fibrosis.

Wandering spleen results from increased splenic mobility on an enlarged splenic pedicle, due to congenital
maldevelopment of the dorsal mesogastrium or acquired ligamentous laxity due to multiparity in women. Clinically, it presents as a fairly painful mass with subacute abdominal or gastrointestinal complaints, or as a mobile abdominal mass diagnosed incidentally or with signs of "acute abdomen" due to splenic torsion and infarction. Imaging studies assist in the preoperative diagnosis.

Splenectomy is recommended for acute torsion of spleen, for congestive splenomegaly and secondary hypersplenism, and even in asymptomatic adults. Splenectomy is recommended in the young, to avoid post-splenectomy sepsis.

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Malignant fibrous histiocytoma of mesocolon

Malignant fibrous histiocytoma of the mesentery is very rare; so far only two cases have been documented in literature. A 50-year-old man presented with a lump in the upper abdomen since 3 months. On examination, a vertically oval mass was present in the upper abdomen intraperitoneally. Systemic examination was otherwise normal. At laparotomy, a lobulated mass 25 cm x 20 cm in size was removed from the transverse mesocolon. Histology was suggestive of malignant fibrous histiocytoma of the mesentery. The postoperative period was uneventful. The patient received chemotherapy.

Malignant fibrous histiocytoma is the most frequent sarcoma in adults and can involve the mesenteric rarely. The diagnosis is often delayed till the disease is an advanced stage, because of the non-specific nature of the symptoms. Malignant fibrous histiocytoma of the small bowel mesentery and of the sigmoid mesocolon were reported in literature as successfully resected, with favorable prognosis.  

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Spontaneous enterocutaneous fistula—A rare presentation of Crohn’s disease in India

Crohn’s disease is common in the Western world, but is considered rare in developing countries like India. In the cases reported from India, presentation with enterocutaneous fistula is very rare.

A 30-year-old man presented with history of lump in the right iliac fossa and pain in the right lower abdomen since 2 months, with no history of fever, cough, diarrhea or GI bleed, and no symptoms suggestive of peritonitis or intestinal obstruction. Ultrasonography 10 days earlier had shown a parietal wall abscess and few dilated bowel loops locally.

Physical examination revealed tachycardia and pallor. Local examination showed an immobile lump, 6 cm x 4 cm, in the right iliac fossa, which was warm, tender, tense and cystic. It was diagnosed as parietal wall abscess and about 100 mL of pus was drained through an incision over 4 days. He was admitted again after 10 days with complaint of fecal discharge from the wound site. He was treated conservatively; the discharge decreased initially but again increased.

After 6 weeks on nutritional support, the patient was taken for exploratory laparotomy, which revealed 50 mL of fecal material in the abdominal cavity. A lump consisting of about 15 cm of ileum, cecum and ascending colon was densely adherent to the parietal wall. The local bowel wall was thickened and mesenteric lymph nodes were enlarged. Omentum was adherent to the lump. The lump was resected, with ileo-transverse colon anastomosis. Postoperative recovery was uneventful. Histology of the resected colon showed transmural chronic inflammatory cell infiltrate with noncaseating granulomas, suggestive of Crohn’s disease. The patient is doing well on follow-up.

This case suggests that in patients with spontaneous fecal discharge (enterocutaneous fistula) with lump in right iliac fossa, a differential diagnosis of Crohn’s disease should be kept in mind even in India.

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References