Enterobiasis mimicking Crohn's disease

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We report a 20-year-old man who presented with abdominal discomfort for 2 months. Colonoscopy showed skip areas with ulceration, resembling Crohn's disease. Biopsies showed chronic inflammation and a non-necrotizing granuloma. An adult pinworm was found in the lumen from an uninvolved segment. The patient responded to mebendazole. [Indian J Gastroenterol2004;23:149-150]

Key words: Enterobius vermicularis

Biopsies from uninvolved regions of the colon may provide the diagnosis in patients with patchy colonic disease.

A 20-year-old man presented with history of two months of abdominal discomfort without diarrhea or any other symptom. Colonoscopy showed several superficial ulcerations in the rectum, sigmoid, ascending colon and ileum. The intervening mucosa was apparently spared, giving an appearance suggestive of Crohn's disease. Several biopsies from macroscopically affected zones, as well as from preserved ones, were taken.

Biopsies from the ileum showed an eosinophil-rich lymphoplasmacytic chronic inflammatory infiltrate in the lamina propria. One of the fragments showed an epithelial non-necrotizing sarcoidal-type granuloma; it was coated by a peripheral layer of eosinophils. Giant cells were not observed, and microorganisms could not be found with PAS, Giemsa and Ziehl-Neelsen stains. The colonic mucosa showed eosinophilic colitis. In one of the fragments from a macroscopically non-affected area, an adult Enterobius vermicularis was observed (Fig). It was lying free in the lumen, and coated by eosinophils. No eggs were found.

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Fig: Adult Enterobius vermicularis in lumen of colonic biopsy (H&E, 400 X)

A diagnosis of colitis and granulomatous ileitis due to Enterobius vermicularis was established, and the patient was treated with mebendazole. His symptoms responded promptly. He refused follow-up colonoscopy. Four years later, the patient remains free of symptoms.

When endoscopy is used in the diagnosis of inflammatory bowel disease, biopsies should be taken from what appears as normal mucosa. The existence of preserved mucosa between affected areas is important in the differential diagnosis between ulcerative colitis and Crohn's disease.

The present case shows how this feature can also be important in the differential diagnosis between inflammatory and infectious bowel disease. The diagnostic clue in this case was found not in the macroscopically preserved colonic mucosa but in its luminal surface, where the adult worm was noticed. Although granulomas in pinworm infection are not common, they tend to be necrotic when present, which was not so in our patient.

Although fungal infection and tuberculosis are considered as causes of granulomatous ileitis, especially in endemic areas or in immunocompromised patients, pinworms are not so commonly considered. They rarely present with ileal and colonic ulcerative disease at endoscopy. Previous weakness of the mucosa is thought to be necessary for the worm to be able to penetrate it.

Clues to the diagnosis of the disease include endoscopic visualization of the worms and the prominent accompanying eosinophilic inflammatory infiltrate in the lamina propria, as in our case. The latter, although present in some cases of ulcerative colitis, is not a common finding in Crohn's disease. It must be remembered that neither tissue eosinophils nor peripheral eosinophilia is a constant finding in enterobiasis.

In conclusion, we report a patient in whom biopsies from preserved areas of the bowel were relevant in
the diagnosis of enterobiasis, which presented itself imitating Crohn's disease.

References

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Acute appendicitis presenting as acute hemiscrotum in a boy

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A 6-year-old boy presented with diffuse abdominal pain, nausea and vomiting followed by features of acute scrotum. Laboratory and radiological evaluation suggested presence of infective pathology in the inguinoscrotal region. Surgical exploration revealed patent right processus vaginalis with purulent collection resulting from the presence of perforated tip of appendix in the hernial sac. Appendectomy with drainage of scrotal collection and ligation of hernial sac resulted in satisfactory recovery. [Indian J Gastroenterol 2004;23:150-151]

Key words: Acute scrotum

Acute appendicitis in children sometimes manifests with rare clinical features owing to its unusual anatomic locations.1,2 Scrotal symptoms as manifestation of acute appendicitis are infrequent in children.1,4

A 6-year-old boy presented with a one-day history of right scrotal pain and swelling, diffuse right lower abdominal pain, nausea, vomiting and low-grade fever. There was no history of abdominal or inguinoscrotal trauma. He had history of occasional inguinoscrotal swelling especially during coughing. On examination the child appeared toxic, febrile and anemic, with dehydration. Local examination revealed tender, edematous, erythematous right hemiscrotum with raised local temperature. The cremasteric reflex was absent. The left scrotum and scrotal contents were normal. Abdominal examination showed a soft, non distended abdomen with mild tenderness in the right iliac fossa near the mid-inguinal point.

Investigations: hemoglobin 8 g/dL, WBC 180000/mm3 (neutrophils 96%); renal and liver function tests were normal. Plain roentgenogram of abdomen showed no abnormality. Color Doppler study of right scrotum showed increased vascularity of the right testis. Ultrasonography of abdomen and inguinoscrotal region showed presence of fluid collection with debris and internal echoes in the right hemiscrotum and inguinal canal.

Surgical exploration of the inguinoscrotal region revealed a patent processus vaginalis containing purulent fluid with feculent smell. There was evidence of a reactive epididymo-orchitis and the spermatic cord was edematous and thickened. The tip of the appendix was in the hernial sac, projecting about 2 cm through the internal inguinal ring. The appendicular tip was inflamed and perforated. Laparotomy through right infraumbilical transverse incision revealed a long inflamed appendix extending into the patent processus vaginalis through the internal inguinal ring. Appendectomy was performed. The right hemiscrotum and peritoneal cavity were irrigated and herniotomy was performed. The postoperative recovery was uneventful. The child is doing well on regular follow-up for the last four months.

Acute scrotum in children can be caused by a number of clinical conditions including testicular torsion, epididymo-orchitis, torsion of testicular appendages, infected hydrocele, incarcerated inguinal hernia, and less commonly by thrombosed scrotal vein, Henoch-Schonlein purpura, and fluid leakage from VP shunt.1,2,3 Acute scrotum secondary to acute appendicitis is rare in children.1,4 All such cases had patent processus vaginalis, as in our patient.1,4

Laboratory investigations are of little diagnostic help; evaluation by color Doppler reveals underlying testicular pathologies especially testicular torsion.

In the presence of symptoms of GI dysfunction, the radiological and surgical evidence (on inguinoscrotal exploration) of purulent collection in the hernial sac provides a clue to the presence of intra-abdominal source of sepsis. Appendectomy with drainage of purulent abdominal and scrotal collections under appropriate antibiotic coverage results in satisfactory recovery.1,4

References

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