Conservative Management of Eosinophilic Infiltration of the Gastrointestinal Tract

Report of a Case

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Eosinophilic infiltration of the intestinal tract has been known since Kayser's description of 3 patients in 1937. Ureles et al. analyzed over 75 cases reported in the world literature through 1961 and differentiated the diffuse from the circumscribed forms of the disease. The case to be reported in this paper is the first with the diffuse polyenteric type of infiltration to be treated with adrenal corticosteroids, which thus obviated the need for surgical intervention.

CASE REPORT

A 57-year-old white woman was admitted to the hospital on Sept. 3, 1963, complaining of nausea and vomiting of 5 weeks' duration. Three years previously she had been hospitalized elsewhere with similar complaints, and partial intestinal obstruction was diagnosed. At that time, the leukocyte count was 15,800/cu. mm with 62% eosinophils. The bone marrow was normal except for excessive numbers of mature eosinophils. Details of gastric analysis showed 30 U. of free acid, with 39 U. of total acidity. Laparotomy was recommended but refused. Abdominal tenderness and vomiting disappeared following administration of atropine, prochlorperazine and intravenous fluids. Large numbers of eosinophils in the ascitic fluid and peripheral blood suggested a clinical diagnosis of periarteritis nodosa, and prednisone therapy was started. All signs and symptoms responded promptly. Six weeks later the patient had gained 15 lb. No edema was evident.

She remained well until 3 weeks before admission, when mild, crampy upper abdominal pain, nausea, and vomiting recurred. Symptoms were progressive, and emesis of large volumes of ingested food occurred following each meal. The past medical history was notable only for a long-standing nasal allergy to animal dander and house dust.

The rectal temperature was 37.8°C., pulse 84, respirations 14, and blood pressure 130/70. The skin and tongue were dry. No rash or jaundice were noted. The abdomen was moderately distended. A fluid wave and bowel loops were distinctly palpable. Diffuse tenderness without rebound tenderness was present initially. Bowel sounds were high pitched.

The white blood cell count was 12,300/cu. mm. with 41% neutrophils, 19% lymphocytes, 2% monocytes, 38% eosinophils. The eosinophil count was 3800/cu. mm. One week later the total white cell count was 14,400/cu. mm. with 64% eosinophils. Stool specimens were examined for enteric pathogens, occult blood, and ova and parasites, with negative results. The serum lipase activity was 0.3 Cherry-Crandall U.; amylase, 30 Somogyi U.; transaminase, 26 Karmen U.; and alkaline phosphatase, 2.7 Bodansky U. No antinuclear factor was found in the patient's serum. Barium enema was normal except for radiographic evidence of ascites. An upper...
gastrointestinal series revealed a small hiatal hernia and abnormality of the mucosal pattern of the gastric antrum. An abnormal pattern of the small bowel was identified with separation of the bowel loops, loss of mucosal detail, and segmentation of the barium (Fig. 1). Aspirated ascitic fluid was pale, clear yellow, and contained 4.6 gm. protein per 100 ml. Ninety-five per cent of the cells were eosinophils; no malignant cells were seen.

After 4 days of intravenous infusions and nasogastric suction, vomiting and distention were controlled, and the gradual introduction of oral liquids was tolerated. Laparotomy was not recommended in view of the rapid response to conservative measures. Unfortunately, an attempted peroral biopsy of the upper gastrointestinal tract was unsuccessful for technical reasons, and the patient would not allow a second attempt. On Sept. 14, prednisone therapy was instituted, 10 mg. t.i.d., and the patient was discharged from the hospital. One week later, clinical signs of ascites and peripheral eosinophilia had disappeared. Nine months later there was no clinical evidence of disease.

COMMENT

This case is thought to represent an example of the diffuse polyenteric form of eosinophilic infiltration of the gastrointestinal tract, as characterized by