Intussusception as the Initial Manifestation of AIDS Associated with Primary Kaposi’s Sarcoma: A Case Report

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Abstract: Kaposi’s sarcoma (KS) is the most common AIDS-associated neoplasm. It involves the gastrointestinal tract, skin and lymph nodes with about equal frequency. However, most cases of gastrointestinal KS are clinically silent and found incidentally. We report the case of a 31-year-old homosexual man who developed intussusception in association with a primary ileal KS. He was admitted due to abdominal pain lasting 2 hours. Flat abdominal roentgenogram revealed small bowel ileus in the central abdomen. Abdominal sonography and computerized tomography revealed an intraluminal soft tissue mass in the small intestine with an intussusception. Exploratory laparotomy found an ileal tumor mass 90 cm proximal to the ileocecal valve. Pathologic examination of the resected intestine showed KS. HIV-1 infection was confirmed by Western blot. The CD4 T-cell count was 59/mm³. In conclusion, intussusception by enteric KS may present as the initial AIDS-associated neoplasm in patients with HIV infection.

Gastrointestinal symptoms usually develop in AIDS patients at some time during the course of illness. Kaposi’s sarcoma (KS) is the most frequent neoplastic disease and is a common cause of gastrointestinal tract involvement in AIDS patients [1]. KS occurs predominantly in homosexual men with AIDS [1]. Patients who suffer from gastrointestinal KS usually have skin or lymph node involvement [2]. However, Friedman found that 40% of AIDS patients with an initial diagnosis of cutaneous or lymph node KS also had gastrointestinal tract involvement [3]. Most cases of enteric KS are clinically silent and found incidentally by endoscopy or radiologic examination [4]. We report the case of a 31-year-old AIDS patient with homosexual behavior who developed intestinal obstruction due to intussusception of the ileum in association with KS. Primary gastrointestinal KS was the initial AIDS-defining illness in this patient.

Case Report

A 31-year-old homosexual man was admitted to our hospital due to abdominal pain lasting 2 hours. There was no history of fever, jaundice, melena or hematochezia. There was neither prior history of abdominal surgery nor other systemic disease including HIV infection. Physical examination revealed an acutely ill, febrile male with a body temperature of 38.5°C. The skin and oral cavity were normal. The abdomen was flat and bowel sounds increased on auscultation. There was diffuse tenderness and rebound pain over the whole abdomen. Rectal examination revealed no mass or hemorrhoid. There was no external hernia.

Laboratory investigations disclosed a white blood cell count of 5,000/mm³, with 56% neutrophils, 30% lymphocytes and hematocrit 31%. Flat abdominal roentgenogram revealed small bowel ileus in the central abdomen. There was
no pneumoperitoneum. Abdominal sonography revealed a 2.5-cm intraluminal soft tissue mass in the small intestine over the right lower quadrant of the abdomen (Fig. 1). Computerized tomography revealed a 2-cm soft tissue mass in the small intestine with an intussusception over the same site (Fig. 2). No abnormalities were seen in the liver, spleen or pancreas. There was no retroperitoneal or pelvic lymphadenopathy.

After supportive treatment with intravenous fluid and nasogastric tube decompression with low-pressure suction, exploratory laparotomy was performed, revealing a 4 x 3 x 3-cm tumor mass over the ileum 90 cm proximal to the ileocecal valve. There were no other abnormal findings in the visceral organs, nor any visceral or retroperitoneal lymphadenopathy. The intussuscepted intestinal segment was resected. Pathologic examination of the resected intestine showed a KS lesion 3.5 x 2.5 x 0.8 cm in size that was located 6.5 cm from one cut end (Fig. 3). Anti-HIV antibody tests using enzyme immunoassay and Western blot were both positive. The CD4 T-cell count was 59/mm$^3$. The patient recovered well and postoperative panendoscopy was normal.

**Fig. 1.** Abdominal sonogram shows an intraluminal soft tissue mass, 2.5 cm in diameter, in the small intestine over the right lower quadrant.

**Fig. 2.** Axial computerized tomogram shows an intraluminal soft tissue mass, 2 cm in diameter, involving the small intestine and a dilated portion of the proximal bowel loop.

**Fig. 3.** Histopathologic examination of the resected ileal tumor. Light microscopy shows many spindle cells, small anastomotic vascular channels, and extravasation of red blood cells. (Hematoxylin and eosin, X 400).

The patient refused highly active antiretroviral therapy (HAART) and was discharged on the 13th hospital day.

**Discussion**

KS is a multisystem neoplastic disease. Skin manifestations are usually seen first. Visceral involvement is frequently seen, especially in the gastrointestinal tract (38–50%) and lung (34%) [2, 5, 6]. The incidence of KS with gastrointestinal involvement has been reported to be as high as 40 to 70% in the presence of cutaneous lesions [2, 7]. Localization of KS is more common in the upper than in the lower gastrointestinal tract [2, 4]. The oropharynx is the most common site of involvement [1]. The frequency of lower-gastrointestinal tract KS with cutaneous or lymph node disease is 12% [4]. KS involving the gastrointestinal tract without cutaneous lesions is rare [8, 9]. Zoller et al found that less than 5% of AIDS patients with gastrointestinal KS had no cutaneous lesions [7]. Lemlich et al found that the rate of gastrointestinal involvement in AIDS patients without KS skin lesions was 8% [10]. Primary gastrointestinal KS without cutaneous lesion was the initial and only AIDS-defining illness in our patient. Studies have reported no difference in CD4 cell count between diffuse KS and KS confined only to the gastrointestinal tract [4, 11].

In the early 1980s, KS was the first AIDS-defining illness (primary KS) in approximately 30% of AIDS cases [12, 13]. The incidence of KS as the AIDS-defining illness has decreased in the USA [14, 15], Europe [16] and Australia [11, 17], and this decrease is associated with HAART [18, 19].
Intestinal intussusception in adults is uncommon and represents less than 15% of reported cases of intussusception [20]. Only one case of intussusception, occurring in the jejunum, has been previously reported in a patient with KS [21]. Most patients with gastrointestinal KS are asymptomatic. Bleeding [22], obstruction [23], appendicitis [24], perforation with peritonitis [25], and persistent gastrointestinal symptoms [26] have all been reported in gastrointestinal KS, with bleeding being the most common complication [10, 27].

Patients with AIDS are surviving longer with HAART and are overcoming opportunistic infections more frequently with antibiotic prophylaxis. Gastrointestinal KS should be considered in the differential diagnosis of acute abdomen in AIDS patients.

References