AN AFRICAN PATIENT WITH AIDS AND LINITIS PLASTICA

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SUMMARY

This is a case report about an African patient with AIDS who was diagnosed with a linitis plastica of the stomach. The evolution of this linitis plastica does not differ in any aspect from that in HIV-negative patients. The question remains unanswered whether there is a link between the HIV infection and the development of linitis plastica in this patient.

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INTRODUCTION

Patients with AIDS more often present with specific malignancies such as Kaposi's sarcoma and non-Hodgkin lymphoma's (1,2). Other neoplasms have also been described in patients with AIDS (3). However the association of these malignancies and HIV infection has not been established in epidemiological studies. To our knowledge, 3 patients with an HIV infection developing a gastric tumor have been reported (4). We describe the case of a patient with AIDS suffering of a linitis plastica.

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CASE REPORT

In May 1989, a 32-year-old woman of Ruandese origin was admitted because of heartburn, epigastric pain, dysphagia and considerable weight-loss. She lived in Europe since 1981. She had 2 children, both in good health, aged 12 and 8 years. During her life she had numerous sex partners. She had periods of alcohol abuse. In 1981 she was treated for pulmonary tuberculosis. The physical examination in May 1989 disclosed the following abnormalities : prurigo with lichenification of the skin around the genital region, emaciation, painful epigastric region, bilateral axillar lymph nodes. The laboratory yielded the following results : severe anemia with 2.02 x 10^{12}/l red blood cells, 19.7% hematocrit and 6.3 g/dl hemoglobin, normal white blood cell and platelet counts; hyponatremia of 129 mmol/l, hypo-albuminemia of 2.3 g/dl and marked polyclonal short chain gammopathy, type lambda. Lipase and gamma-GT levels were high (600 U/l and 135 U/l) (normal range : < 200 U/l; 4-18 U/l respectively). Serologic tests showed antibodies against HIVl, both in ELISA and Western Blot. Other clinically relevant tests included CD4 lymphocytes of 0.250x10^9/l and CD8 lymphocytes of 0.240 x 10^9/l, ratio CD4/CD8: 1.04, serum gastrin: 129 pg/ml (normal range < 300 pg/ml), CEA: 6.6 mg/ml (normal range: 6 - 8.5 mg/ml). Skin-tests for delayed cell-mediated hypersensitivity were negative, including the tuberculin-test.

Abdominal CT-scan revealed a diffusely

thickened stomach wall and hepatomegaly. There were no abdominal adenopathies. Gastroscopy revealed a candida oesophagitis and haemorrhagic gastritis. Two gastric biopsies obtained during gastroscopy revealed the presence of isolated atypical cells in the lamina propria, containing P.A.S. positive diastase resistant droplets. However, due to tissue damage a definite diagnosis of adenocarcinoma could not be made. A laparotomy was performed; the biopsy of the greater omentum showed poorly demarcated zones of fibrosis in the adipose tissue, containing abnormal epithelial cells with a signet ring appearance. P.A.S. positive diastase resistant droplets were present in the cytoplasm of most of these epithelial cells. There was immunoreactivity for epithelial membrane antigen and carcinoembryonic antigen, establishing the diagnosis of signet ring cell adenocarcinoma.

The patient was fed by a jejunostomy feeding catheter and she was treated with itraconazole and azidothymidine, since a gastrectomy was technically impossible. The patient's general condition improved, but nausea persisted. Five months after the diagnosis of linitis plastica, ascites developed. The ascitic fluid contained signet ring cells. At the same time, a bluish-purple nodule appeared on the left arm. Microscopical examination revealed the presence of signet ring cells. The patient died 2 months later.

At autopsy the stomach wall was 0.6 cm thick and was composed of white firm tissue that extended into both omenta and surrounded the pancreas, intestines and the left ureter. Microscopical investigation revealed the presence of numerous signet ring cells. Additional findings were micronodular liver cirrhosis, which may have been caused by alcohol abuse, and bilateral pneumonia.

DISCUSSION

Linitis plastica of the stomach is a rare disease and is usually difficult to diagnose preoperatively (5,6). In 24% of patients with linitis plastica, primary gastric carcinoma is found, which is as frequent in males as in females (6,7). The incidence of gastric carcinoma in Africa is lower than in Western countries (8). This low incidence may be due to under-reporting and under-diagnosing. This low incidence is not observed in the Negro populations of Jamaica and the United States (8). So far no link has been established with environmental causes (8).

The patient described in this case report was at risk for contracting HIV1 infection, having had numerous sex partners in an area with high endemicity. She was diagnosed with a gastric linitis plastica while she was already immunocompromised (CD4 of $0.25 \times 10^9/l$). Candida esophagitis was the only major infection she had developed so far. She did not have any increased risk such as sex and ethnic origin for the development of linitis plastica. Patients with HIV infection and a linitis plastica seem to present with the same symptoms, pattern of tumor growth and localisation of metastasis as other patients with linitis plastica without HIV infection (4-6). Our patient developed skin metastasis of linitis plastica presenting as a purple infiltrated nodule of 2 cm diameter, closely resembling Kaposi's sarcoma. The mean survival of patients with gastric linitis plastica whitout gastrectomy is 6.6 months (9). Our patient died after 7 months. The fact that she also had AIDS CDC stage IV disease did not seem to alter her prognosis. In this patient, these data suggest that both AIDS and linitis plastica developed independently of each other.

SAMENVATTING

Er wordt een beschrijving gegeven van een Afrikaanse patiënte met AIDS die een linitis plastica van de maag ontwikkelt. Het verloop van de linitis plastica volgde hetzelfde stramien als bij niet HIV - positieve patiënten. De vraag rijst of er al dan niet een oorzakelijk verband bestaat tussen de HIV infektie en het ontstaan van de linitis plastica.

RESUME

Nous décrivons une patiente d'origine africaine, atteinte de SIDA, qui développe une linite plastique de l'estomac. L'évolution de la linite plastique ne diffère sous aucun aspect de celle observée chez les patients non infectés par le VIH. La relation entre l'infection à VIH et l'apparition de cette néoplasie est discutée.

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