Case Report

Recurrent Peritonitis with Ascites as the Predominant Manifestation of Systemic Lupus Erythematosus

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Summary

We describe a patient with abdominal pain and ascites, mesenteric lymphadenitis and peritoneal panniculitis. Initially her ANA was negative. The abdominal pain recurred again three years later and in between the two episodes she had had skin rash, alopecia, arthralgia, and positive Coombs' test - haemolytic anaemia. Her ANA became positive a few years after the initial episode.

Key words

Systemic Lupus Erythematosus, Peritonitis, Ascites.

INTRODUCTION

Systemic lupus erythematosus (SLE) commonly influences the pleura and pericardium. Clinically peritoneal inflammation is manifested in only 16% of all SLE patients (2) though autopsy evidence of peritoneal involvement is found in up to 63% (1).

The ascites due to lupus can present acutely or chronically. Significant ascites as the predominant manifestation of SLE is extremely rare (2). We describe a patient who presented with mesenteric lymphadenitis and recurrent peritonitis as the predominant manifestation of lupus.

CASE REPORT

A 27-year-old female was hospitalized in May, 1990 with a chief complaint of abdominal pain, nausea and vomiting. In July 1987 she was admitted to our hospital for abdominal pain, constipation and repeated vomiting. Examination revealed diffuse abdominal tenderness with no rigidity and positive shifting dullness.

Investigation revealed a WBCs of 11,500/mm³ with normal differential, Hb 9.1 g/dL, platelets 141,100/mm³, ESR 60 mm/h, BUN 65 mg/dL and creatinine 3.8 mg/dL, ultrasound showed moderate amount of ascites. Peritoneal aspirate showed WBCs of 480/mm³ (82% polymorphs and 18% lymphocytes), protein of 6 gm/L, glucose of 128 mg/dL and LDH of 485 w/L. Tuberculin skin testing with 5 and 250 units were negative. Urinalysis showed 15-20 WBC/hpf, 25-35 RBCs/hpf, 2-3 hyaline casts, 1+ proteinuria. Twenty-four hour urine collection revealed 750 mg proteinuria. Direct and indirect Coombs' tests were positive; fluorescent antinuclear antibodies (using rat liver substrate) were negative.

Exploratory laparotomy revealed around 1000 cc of pale yellow, straw-colored fluid. The small intestine was oedematous and the mesenteric lymph nodes were enlarged. Biopsy of lymph node showed reactive hyperplasia while omental and peritoneal biopsy revealed foci of polymorphonuclear infiltration, fat necrosis and aggregate of lipophage, characteristic of panniculitis (Fig. 1). Postoperatively, the patient showed gradual improvement; BUN and creatinine returned to normal level. Colonoscopy up to the cecum showed no abnormalities and multiple colonic biopsies were normal.

Bacterial, fungal and TB cultures of ascitic fluid, lymph node, peritoneal and omental biopsies were all negative. For two months she was empirically treated for tuberculosis with INH, rifampicin and streptomycin.

Two months later, she was rehospitalized because of abdominal pain, jaundice, headache and the appearance of rash on the face and upper chest. The rash appeared as erythematous, scaly macules. Skin biopsy of the lesions showed degenerative changes of the basal zone with oedema of the upper dermal connective tissue and inflammatory cells around the upper dermal vessels and hair follicles. Immunofluorescence stain showed a band...
at the basal zone positive for IgM and C₃ but negative for IgG and IgA. Her bilirubin was 12.7 mg/dL (direct 5.6), alkaline phosphatase 123 U/L (N: 98-279 IU/L), SGPT 136 U/L (N: 2-45 IU/L), SGOT 259 (N: 10-45 IU/L). Hepatitis A and B serology and anti-HIV were negative. Antinuclear antibodies test and anti-DNA (using Crithidia luciliae) were negative.

Due to drug-induced liver toxicity, INH and rifampicin were replaced by ethambutol and ciprofloxacin. The patient was diagnosed as having possible ANA-negative lupus.

The patient serum was tested for ANA in another laboratory (using human HEP-2 cells) and the test was still negative.

One month later the patient was readmitted due to joint pain in the hands and knees, excessive hair loss and headache. She was found to have diffuse hair loss and generalized macular rash. Liver function returned to normal level. Her WBC were 4500/mm³, Hb 10.4 g/L, platelets 261,000/mm³ and ESR 112 mm/h.

The antituberculous drugs were discontinued and she was treated with hydroxychloroquine 200 mg twice a day. Within two weeks the patient showed some improvement; she had less joint pain, the rash started to disappear and she was feeling well.

The patient was lost to follow-up, but came back on May 18, 1990 with a one-week history of diffuse abdominal pain, nausea, vomiting and joint pain. She was found to be afebrile with abdominal tenderness and shifting dullness. Chest X-ray showed small left pleural effusion. Peritoneal tap showed WBCs of 420 (65% lymphocytes and 35% polymorph), protein of 4.8 gm/dL, glucose of 102 mg/dL and amylase was 6 u/L (serum amylase was 30 u/L). Urinalysis showed 1+ proteinuria, 3-10 RBCs/hpf, 5-10 WBCs/hpf, but no casts. C₃ was 51 mg/dL (N: 83-177) and C₄ was 10 mg/dL (N: 15-45). Her ESR was 43/h. ANA done on human cells was positive at a titre greater than 1:1280 with speckled pattern and anti-ds DNA was 1:20. Kidney biopsy showed an increase in cells in the mesangium indicating mild mesangioproliferat-