Reactive Arthritis, Psoriasiform Lesions and Protein Loosing Enteropathy Secondary to Strongyloidiasis

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Abstract

Reactive arthritis is associated with demonstrable infection at a distant site without evidence of sepsis at the affected joint(s). We present a rare case reactive arthritis where no bacterial or chlamydial infections could be established, rather larvae of Strongyloides stercoralis could be demonstrated in the stool and duodenal biopsy. Reactive arthritis, psoriasiform lesions and malabsorption with hypoproteinaemia, responded to successful treatment with antihelminthic drugs. Early recognition and adequate treatment for gastrointestinal infections and infestations before complications is important.

INTRODUCTION

Reactive arthritis (ReA) is an infection-induced systemic illness characterized by an inflammatory synovitis from which no viable microorganisms can be cultured. ReA with complete triad of urethritis, conjunctivitis and arthritis. Reactive arthritis is associated with demonstrable infection at a distant site without evidence of sepsis at the affected joints. Strongyloides stercoralis is an alimentary canal helminth. Unexplained gastrointestinal symptoms with extensive scratch marks below the umbilicus can be important clues to early diagnosis of the disease. Recognition of the characteristic cutaneous eruption of disseminated strongyloidiasis can be crucial for early diagnosis and treatment of this potentially fatal infection.1 We present a rare case of ReA where no signs of bacterial or chlamydial infection could be established, rather larvae of Strongyloides stercoralis were demonstrated in the stool and duodenal biopsy.

CASE REPORT

A 26-year old sexually promiscuous male came with complaints of arthritis and generalized oedema since six months and skin lesions since three months. Patient had history of diarrhoea 15 days back for 10 days. He also had bilateral knee joint pain and swelling, of 15 days duration before admission. His past history was significant for an episode of jaundice and blood transfusion.

On examination, patient had marked pallor and generalized anasarca. On palpation of abdomen, soft non-tender hepatomegaly with free fluid was noticed. Both knee and ankle joints were swollen. Neurological examination and examination of genitalia was normal. Generalized papulosquamous psoriasiform lesions were seen more on the buttocks, hand and abdomen. There was no clinical evidence of urethritis.

Investigations

CBC: Haemoglobin of 8.2 gm/dl, total leukocyte count of 7600/mm³, Neutrophils 54%, lymphocytes 34%, eosinophils 12% and an erythrocyte sedimentation rate of 3 mm/hr. Coagulation profile was within normal limits. Serum ferritin was 15 µg/l with a TIBC of 380 µg/dl. Chest x-ray was normal. Serology for HBsAg, HIV, rheumatoid factor and LE cell tests was negative. Liver function tests showed serum protein of 3.2 gm/dl, albumin of 1.7 gm/dl with normal enzyme levels. Stool examination was negative for occult blood but revealed larvae of Strongyloides stercoralis. Stool fat by quantitative determination was 7.6 gms/day. Lipid profile and serum electrolytes were within normal limits. There was no evidence of urethritis. Ultrasound studies revealed normal echo heart, mild pleural effusion, mild hepatomegaly with normal echo pattern and ascites. On colonoscopy, a small area of congestion with polypl-like lesions was noted. Upper gastroendoscopy showed presence of increased gastro-esophageal reflux with mild diffuse gastritis. Skin biopsy showed features of focal parakeratosis with acanthosis in the epidermis, otherwise dermis was normal. These features were compatible with psoriasiform dermatosis. Duodenal biopsy showed larvae of strongyloides in the crypts (Figs. 1a and b).

Reactive arthritis, psoriasiform lesions and malabsorption with hyproteinaemia responded to successful treatment with antihelminthic drugs (Albendazole 400 mg/day for 3 days)
DISCUSSION

Reactive arthritis (ReA) is the result of reaction to infections. Commonly incriminated pathogens include Salmonella, Shigella, Campylobacter, or Yersinia infection in the gut or Chlamydia, Ureaplasma in the urinary tract.

The first bacterial infection noted to be causally related to ReA was S. flexneri. An outbreak of shigellosis among Finnish troops in 1994 resulted in numerous cases of ReA. Parasitic infestation leading to ReA has been reported in literature. Few cases of strongyloidiasis with reactive arthritis (ReA) are reported in the literature.2,3

ReA is a clinical diagnosis, there being no definitive diagnostic laboratory test(s) or radiographic finding(s). The diagnosis should be entertained in any patient with an acute inflammatory, asymmetric, additive arthritis or tendonitis. The clinical manifestations of ReA constitute a spectrum that ranges from an isolated transient monarthritis to severe multisystem disease.

Nuesch and Schweiz2 reported a case of strongyloidiasis with reactive arthritis anaemia and essential hypotension in a patient with multiple helminth infestation. A case of ReA with uveitis associated with a longstanding and heavy infection with strongyloides stercoralis was reported in a 32 year old HTLV-1 positive West Indian man.3

The skin lesions of keratoderma blenorrhagica associated mainly with venereally acquired ReA, are histologically indistinguishable from psoriatic lesions.5,6 The rash consists of vesicles that become hyperkeratotic, ultimately forming a crust before disappearing. They are most common on the palms and soles but may occur elsewhere as well. Our patient had lesions mainly on the extremities and abdomen. Disseminated strongyloidiasis with cutaneous manifestations in an immunocompromised host has also been reported in literature.1,5,6 This case presented to us as arthritis with psoriasiform lesions and was found to have strongyloidosis enteropathy and arthropathy. The patient responded to specific treatment of strongyloidosis.

REFERENCES