A case report of a man with rheumatoid factor positive rheumatoid arthritis associated with collagenous colitis

Sirs,

Collagenous colitis (CC) is a rare disease with an unknown aetiology presenting as a waxing and waning colitis with watery diarrhoea, often nocturnal, and weight loss. Typical microscopic lesions are observed on colonic biopsy (1), while barium enema and colonoscopy are normal. Histopathology reveals subepithelial collagen layer thickening (>10 due to reduced matrix degradation (2), lymphocytic infiltration and minimal crypt distortion. CC has a female predominance (9:1 ratio) and a high prevalence in the late 6th or early 7th decade. An association of collagenous colitis with rheumatic diseases (3) has been reported.

We report the case of a 68-year-old man who was referred to our clinic in January 1996 for oligoarthritis of both shoulders, the right wrist and the fourth proximal interphalangeal (PIP) joint of the left hand. He described morning stiffness lasting more than an hour and pronounced weight loss. His past medical history included haemorragic duodenitis with hypo-volemic shock due to aspirin intolerance, an abdominal aortic aneurysm and late stage right hip osteoarthritis. The general examination was unremarkable while musculoskeletal findings included synovitis in the right wrist and 4th left PIP joint. Investigations in January 1996 showed: erythrocyte sedimentation rate (ESR) 85 mm/hr, C-reactive protein (CRP) 4.2 mg/dl, haemoglobin (Hb) 10.2 g%,haematocrit (Hct) 29.3%, rheumatoid factor latex test 2670 UI, and Waaler-Rose 1:2560. Hand X rays showed juxta-articular osteoporosis and soft tissue swelling of the fourth PIP joints bilaterally.

In May 1996 he first presented with watery diarrhoea and significant weight loss. Successively, in July 1996 he developed an exacerbation of arthritis and was admitted to our division. Blood tests at the time showed: ESR 66 mm/hr, CRP 2.4 mg/dl, RF latex test 693 UI, Waaler Rose 1:640. Anti-endomysium and anti-gliadine antibodies were negative. Parasitologic and bacteriological examination of stools were negative. Chemical/physical stool examination was unremarkable. Fecal occult blood testing was positive and the patient underwent pancoloscopy. Endoscopy was normal but random biopsies of the colonic mucosa showed intra-epithelial lymphocyte and plasmacell infiltrate with thickening of subepithelial collagen layer ≥ 10 . These findings were suggestive of collagenous colitis (Fig. 1). Hand x-rays showed bilateral erosions of the 2nd and 3rd PIP joints.

The patient was treated with enteric coated sulphasalazine 2 g/daily, i.m. methotrexate 10 mg once weekly, methylprednisolone 8 mg/daily per os, and ranitidine 300 mg with good results after two months.

A recent review discusses 163 cases of CC, drawn from a registry of 25 Swedish hospitals. Median age at diagnosis was 55 years (range 16-86) although 25% of the patients were younger than 45 years (4). The cause of CC is currently unknown, although several mechanisms have been proposed, including an autoimmune origin or a dysregulation of collagen synthesis. A possible role of bacterial or drug toxins has also been suggested (5). The positivity of antinuclear, anti-neutrophilic cytoplasmatic, anti-cardiolipin antibodies and the presence of rheumatoid factors support the hypothesis that autoimmune mechanisms may be involved (6). Spondyloarthropathies, seronegative polyarthritides without joint destruction, Raynaud's phenomenon, and, in rare cases, systemic lupus erythematosus and scleroderma have all been found in patients with CC (3-10).

Immune mechanisms could be involved in the pathogenesis. Evidence includes the finding of CD4 cell infiltrates within the lamina propria, epithelial damage closely related to the increase of CD8 TCR - intra-epithelial lymphocytes, and abnormal class II MHC molecule expression on the epithelial cells of the colonic mucosa. Recent data points to a differentiation abnormality in the colonic mucosa fibroblasts (7). Some patients also report xerophthalmia and xerostomia. Salivary gland histology shows an increased collagen content.

An immunologically mediated pathogenesis may account for the fact that drugs used in treatment of rheumatoid arthritis such as sulphasalazine, corticosteroids and methotrexate may also be used successfully in CC (4-9).

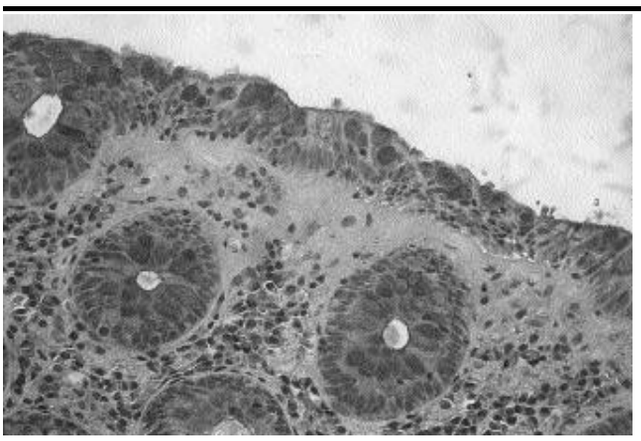

Fig. 1. Biopsy of the colonic mucosa showed intra-epithelial lymphocyte and plasmacell infiltrate with thickening of subepithelial collagen layer ≥ 10 , suggestive of collagenous colitis.

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