Similar anti-Proto* mirabilis titres in P1 positive and P1 negative individuals with rheumatoid arthritis

During recent years there have been several reports showing increased antibody levels against Proteus mirabilis in patients with rheumatoid arthritis (RA).1-3 P. mirabilis is a well known cause of urinary tract infection, and adhesion to the epithelium in the urinary tract seems to be essential in the pathogenesis of urinary tract infections. The blood group antigen P1, expressed on the epithelium of the urinary tract, and this molecule is assumed to act as a receptor for P. mirabilis.

These facts led Deighton and colleagues to study the relationship between expression of the P1 antigen and antiproteus titre

controls

We have measured the antiproteus titre in 50 RA patients who participated in a controlled clinical trial of fasting and a one year vegetarian diet, and in 28 age and sex matched controls by an indirect immunofluorescence technique. Antibody titres were expressed in arbitrary units (AU) which were defined as log, dilution units (1:10 = 1 AU; 1:20 = 2 AU; 1:40 = 3 AU, and so forth). The P blood group status of these patients and controls was determined by means of a standard microtyping system (DiaMed AG, Murten, Switzerland). All samples were examined under code. In agreement with previous reports, we found that the mean antiproteus titre was significantly higher in the RA patients than in the controls (mean (SD): 3:5 (1-3) AU v 2:2 (0.7) AU; p < 0-0001, Mann-Whitney U test), and that RA patients with a high disease activity (C-reactive protein >10 mg/l) had a significantly higher mean titre than patients with low disease activity (mean (SD): 4:0 (3-3) AU v 3:0 (1-0) AU; p < 0-0001). The mean antiproteus titre was slightly higher in the P1 positive subjects (mean (SD): 3:5 (1-6) AU v 3:0 (1-3) AU) than patients and healthy controls (figure). This difference, however, was not significant (p < 0-27, Mann-Whitney U test). Furthermore, the antiproteus titres did not differ significantly between P1 positive and P1 negative individuals when RA patients and healthy controls were analysed separately (p < 0-25 and p < 0-14). In the group of RA patients, the P blood group status was not significantly associated with rheumatoid factor status, disease activity, disease duration, or whether or not the patients had a beneficial effect of dietary therapy.

Deighton and colleagues examined a much larger number of patients than we did, and it is possible that the difference between their and our results is attributable to differences in the power of the statistical analyses.

Early development of Hodgkin’s lymphoma in association with the use of methotrexa for the treatment of dermatomyositis

It is widely accepted that dermatomyositis is associated with cancer. This time-honoured perception has recently gained additional endorsement from a meta-analysis by Zantos et al., based upon four controlled studies.1 These authors confirmed the association between the two conditions and suggested that dermatomyositis can be considered a paraneoplastic phenomenon.1 The link between cancer and dermatomyositis in children is less obvious, yet well documented.

Methotrexa, the most widely used disease modifying antirheumatic drug in the USA, has recently been implicated in a similar way.2,3 We report here a patient who developed Hodgkin’s lymphoma after six months of methotrexa therapy for newly diagnosed dermatomyositis.

An 18 year old white male with spastic tetraplegia secondary to cerebral palsy and a history of multiple corrective orthopaedic procedures developed persistent malaise, followed by an erythematous rash affecting his face and extensor surfaces of the elbows, wrists, knuckles, knees, and feet. On examination, a typical dermatomyositis rash was noted and symmetrical muscular weakness documented in his shoulders, hips, and neck flexors.

Laboratory evaluation revealed a normal peripheral blood count, a sedimentation rate of 13 mm/1st h, borderline positive antinuclear antibody (ANA) at 1:50, negative double stranded (ds)DNA antibodies, and normal muscle enzymes. An electromyogram demonstrated both myopathic and denervation potentials. A muscle biopsy specimen was non-diagnostic and a biopsy specimen of uninvolved skin revealed perivascular lymphocytic infiltrate.

Prednisone (80 mg/day) and hydroxychloroquine (200 mg/day) were prescribed, with excellent clinical response, but the dermatomyositis and the rash continued, and it was discontinued. This time-honoured perception was followed by worsening of the rash and systemic symptoms. At the seventh month, oral methotrexa (15 mg/week) was initiated, with virtual resolution of the cutaneous and muscular symptoms over the next four weeks. The dose of prednisone was successfully decreased to nothing over an eight week period. 

At 13 months (six months of exposure to methotrexa), the patient was entirely asymptomatic, but a right supravclavicular mass was detected on examination. The pathological report on an excisional biopsy specimen revealed Hodgkin’s lymphoma.
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