Zidovudine related arthropathy

Drs D MURPHY, M LYNCH, F MULCAHY (St James's Hospital, Dublin 8) write: Zidovudine has become the standard treatment for patients in the advanced stages of infection with HIV and for patients infected with HIV who are symptom free but have low CD4 counts. Side effects during zidovudine treatment are common, depression of bone marrow being the most relevant.¹ The non-haematological adverse events are less common and include gastrointestinal complaints, rash, headache, lethargy, and myopathy.² We report the case of a patient with HIV infection who developed arthropathy shortly after starting treatment with zidovudine.

A 33 year old man with a history of intravenous drug misuse had become infected with HIV. He started taking zidovudine 500 mg daily in divided doses following a diagnosis of *Pneumocystis carinii* pneumonia in October 1991, when his CD4 count was $40 \times 10^6/l$. He and his family had no history of colitis or psoriasis. After 12 days of treatment he presented with severe pains in the knee, ankle, elbow, and wrist joints requiring admission to hospital.

On examination movement in all joints was reduced and he had bilateral knee effusions. There was no evidence of urethritis, conjunctivitis, or skin lesions. Joint radiographs looked normal and culture of aspirates from both knee joints gave negative results. The erythrocyte sedimentation rate was raised. He was negative for both nuclear antibodies and rheumatoid factor. He recovered fully with analgesia and physiotherapy within seven days of stopping zidovudine treatment.

The patient started taking zidovudine again in May 1992 at a lower dose of 300 mg daily. Ten days later he presented with severe low back pain, generalised arthralgia, and sacroileitis. As before, investigations gave normal results and radiographs looked normal. He discontinued treatment and was free of symptoms within five days.

This patient developed joint symptoms shortly after starting zidovudine treatment, and the symptoms improved after drug withdrawal. The arthropathy occurred on rechallenging with the drug. Although HIV seronegative arthropathy is well described in intravenous drug misusers, we believe that zidovudine was the most likely cause of arthropathy in this patient.

1 Gelmon K, Montaner JSG, Fanning M, Smith JRM, Falutz J, Tsoukas C, et al. Nature, time course and dose dependence of zidovudine-related side effects: results from the multicentre Canadian azidothymidine trial. *AIDS* 1989;3:555-61.

2 Moore RD, Creagh-Kirk T, Keruly J, Link G, Wang MC, Richman D, et al. Long-term safety and efficacy of zidovudine in patients with advanced human immunodeficiency virus disease. Zidovudine Epidemiology Study Group. *Arch Intern Med* 1991;151:981-6.

Pustular eruptions after chlorpromazine

Drs N P BURROWS, R C RATNAVEL, and P G NORRIS (Department of Dermatology, Addenbrooke's NHS Trust, Cambridge CB2 2QQ) write: We report on two patients who developed pustular eruptions after treatment with chlorpromazine.

A 32 year old white man with the Eaton-Lambert syndrome and a longstanding history of obsessive compulsive disorder with unipolar depression was prescribed chlorpromazine (250 mg daily) for an acute psychotic episode. The dose was increased to 700 mg over the next 10 days. Three weeks later he developed a fever (38.5°C) and a macular eruption on his trunk, which was itchy and erythematous. The rash spread to his limbs and face and developed with widespread follicular and non-follicular pustules. His other drug treatment had not been altered: 3,4-diaminopyridine (60 mg daily), pyridostigmine bromide (180 mg daily), prednisolone (15 mg on alternate days), azathioprine (275 mg daily), and ranitidine (150 mg daily).

Urea and electrolyte concentrations and viral titres were normal. The following investigations yielded normal or negative results: liver function tests, blood culture, monospot test, and culture of throat and skin swabs. His haemoglobin concentration was 111 g/l (normal range 130-180), with normal indices, and his eosinophil count was $0.98 \times 10^9/l$ ($0.04-4.0$). A skin biopsy specimen showed a mixed perivascular infiltrate in the upper dermis, with collections of neutrophils around hair follicles resembling folliculitis. There was no evidence of vasculitis, and direct immunofluorescence gave negative results for IgG, IgM, IgA, and C3. The rash cleared within two weeks after chlorpromazine was withdrawn.

A 49 year old white woman with schizophrenia started chlorpromazine treatment (100 mg three times a day) to control her psychotic symptoms. Two days later she developed a fever (37.5°C) and an erythematous macular rash that was confined to her face and the dorsum of her hands in a photosensitive distribution. Pustules appeared after a further 24 hours, predominantly on the cheeks and forehead. Urea and electrolyte concentrations, erythrocyte sedimentation rate, viral

Sterile pustules surrounded by erythema in a patient treated with chlorpromazine

titres, and concentrations of nuclear antibodies, extractable nuclear antibodies, immune complexes, and complement were normal. The results of urine analysis, liver function tests, and culture of skin swabs were normal or negative. The neutrophil and eosinophil counts were raised ($8.13 \times 10^9/l$ ($4-11$) and $0.7 \times 10^9/l$ respectively). Complete resolution of the rash was seen within 10 days after stopping chlorpromazine.

Pustular eruptions after drug treatment are uncommon and most often caused by antibiotics.^{1,2} The first case was typical of toxic pustuloderma,^{1,3} whereas the second was probably a florid phototoxic reaction. These cases show that chlorpromazine should be added to the list of drugs implicated in this uncommon condition.

- 1 Staughton RCD, Rowland Payne CME, Harper JJ, McMiochen H. Toxic pustuloderma—a new entity? *J R Soc Med* 1984; 77(suppl 4):6-8.
- 2 Roujeau J-C, Biolac-Sage P, Bourseau C, Guillaume JC, Bernard P, Lok C, et al. Acute generalised exanthematous pustulosis. *Arch Dermatol* 1991;127:1333-8.
- 3 Burrows NP, Russell Jones R. Pustular drug eruptions: a histopathological spectrum. *Histopathology* 1993;22:569-73.

Iritis after treatment with streptokinase

Drs M Y GRAY and J H LAZARUS (Llandough Hospital NHS Trust, Penarth, South Glamorgan CF64 2XX) write: Several allergic reactions have been described in association with streptokinase. Immediate reactions include bronchospasm, urticaria, and anaphylaxis.¹ Delayed reactions include vasculitis and an illness like serum sickness.^{2,3} Kinshuk suggested that iritis may be associated with streptokinase treatment.⁴ We report a case of severe bilateral iritis after intravenous streptokinase for a suspected myocardial infarction.

A 69 year old woman was admitted with central chest pain; her electrocardiogram showed left bundle branch block, and acute myocardial infarction was provisionally diagnosed. She was given streptokinase (1.5 million units) together with hydrocortisone, diamorphine, metoprolol, frusemide, aspirin, and heparin. Her electrocardiogram remained unchanged and serum cardiac enzyme concentrations remained normal. Twenty four hours after streptokinase treatment she reported pain and blurred vision in her left eye. She had decreased visual acuity and a hypopyon in this eye. Severe iritis was diagnosed and treatment with steroid and atropine eye drops started. Forty eight hours later she had similar symptoms in her right eye. An ophthalmologist confirmed the presence of acute iritis in the right eye and started the same treatment. After one month all treatment for iritis was stopped except for prednisolone acetate drops to the left eye.

Three other cases of uveitis associated with streptokinase treatment have been reported to the Committee on Safety of Medicines (personal communication, 1993). Speculation that iritis may be linked to myocardial infarction itself seems unlikely since our patient had not suffered an infarction.⁴ This phenomenon could be a delayed allergic reaction to streptokinase, and we would advise urgent referral to an ophthalmologist.

- 1 Bell WR, Meek AG. Guidelines for the use of thrombolytic agents. *N Engl J Med* 1979; 301:1266-70.
- 2 Bucknall C, Darley C, Flax J, Vincent R, Chamberlain DA. Vasculitis complicating treatment with intravenous anisylated plasminogen streptokinase activator complex in acute myocardial infarction. *Br Heart J* 1988;59:9-11.
- 3 Schwetzer DH, Vander Wall EE, Boshier HA, Scheffer E, McFarlane JD. Serum sickness like illness as a complication after streptokinase therapy for acute myocardial infarction. *Cardiology* 1991;78:68-71.
- 4 Kinshuk D. Bilateral hypopyon and streptokinase. *BMJ* 1992;305:1332.