CLINICAL REPORTS

Herpes simplex type 2 meningitis treated with acyclovir

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Summary

A case of meningitis due to a primary genital herpes simplex type 2 infection, and its prompt response to therapy with intravenous acyclovir is reported. This complication of genital herpes is probably underdiagnosed and it is worthwhile searching for evidence of genital herpetic lesions in a young patient presenting with viral meningitis.

KEY WORDS: genital herpes, meningitis.

Introduction

Acyclovir is an antiviral agent, relatively specific for herpes simplex, which is remarkable for its lack of toxicity (Chou, Gallagher and Merigan, 1982). It has recently been released for general use in severe herpes simplex infections. We report a case of primary genital herpes simplex infection which was complicated by meningitis and treated with this compound.

Case report

A 26-year-old married woman was admitted to hospital with an 8-day history of vulval pain and inflammation associated with dysuria. The day before admission she developed in addition headache, backache, neck stiffness, vomiting and photophobia. There was no history of previous infection with herpes simplex. On examination she was very drowsy but rousable and afebrile. There was vulval excoriation and several papules but no vesicles. She had moderate neck stiffness and Kernig's sign was positive. Neurological examination was otherwise normal.

Her cerebrospinal fluid (CSF) was under 150 mm pressure and contained 950 white cells per cubic

millimetre, predominantly mononuclear, protein 2.9 g/l and glucose 2.9 mmol/l with simultaneous blood glucose of 8.5 mmol/l. Full blood count was normal with an ESR of 10 mm in the first hr; serum electrolytes and biochemical screen were normal and her antisyphilis serology was negative. Computed tomography of the head was normal.

Treatment was begun immediately with intravenous acyclovir, 500 mg 8 hourly. Within 12 hr she was alert and, apart from transient urinary retention, had made a complete symptomatic recovery from both her neurological and genital lesions within 4 days. Acyclovir was continued for 7 days by which stage there were no visible residual genital lesions. Repeat lumbar puncture at 4 days showed 94 white cells (90 lymphocytes) and protein 0.8 g/l.

No virus was isolated from the CSF. Reciprocal serum herpes simplex titres rose from 8 to 128 within 4 days indicating a primary herpes virus infection. At this stage serum:CSF antibody ratio was 16:1 compared with albumin ratio of 82:1 indicating antibody synthesis within the central nervous system.

Discussion

Meningitis is an uncommonly reported complication of primary genital herpes simplex infection, although minor degrees of meningitic involvement are probably frequently overlooked in the severe constitutional upset which may accompany the condition. Although the meningitis is usually considered to be benign and self-limiting, recurrences may occur (Terni *et al.*, 1971; Stalder *et al.*, 1973) and the illness may be prolonged (Sköldenburg and Jeanson, 1973). Meningoencephalitis has been reported in adults (Morrison *et al.*, 1974), in children born to infected mothers (Nahmias *et al.*, 1969) and in the immunocompromised (Sutton *et al.*, 1974).

A recent report has demonstrated that treatment of severe primary genital herpes infection with acyclovir

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is associated with a more rapid resolution of symptoms and vesicles (Mindel *et al.*, 1982), although its effect on the frequency and severity of recurrences and complications has not been clearly established. Our case, however, showed simultaneous rapid resolution of the meningitic and genital infections, suggesting that complications may also be limited by acyclovir. We suggest that the severe morbidity from encephalitis in young adults and their offspring and the possibility of recurrence of meningitis support the use of acyclovir in the treatment of genital herpes simplex infection particularly when this is complicated by meningitis. In addition, it is worthwhile enquiring about and examining for the presence of genital herpes in all young people presenting with viral meningitis.

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