Acyclovir and post-herpetic neuralgia and ocular involvement

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Herpes zoster infection is a common clinical problem in elderly people. Three of the consequences of such infection are acute rash, post-herpetic neuralgia, and, for those with trigeminal infection, ocular complications.

Post-herpetic neuralgia is a severe, prolonged, debilitating complication with no known effective treatment. Acyclovir treats acute rash,¹⁻⁴ but its role in preventing post-herpetic neuralgia and ocular complications remains controversial. These complications can be severe and sight threatening and can require prolonged treatment. Topical acyclovir has been shown to be beneficial when given prophylactically and in established cases.⁵ We examined whether high oral doses of acyclovir (800 mg five times a day for seven days) have a beneficial effect on post-herpetic neuralgia and reduce ocular involvement in the long term.

Patients, methods, and results

Of the 74 patients in an earlier trial,⁴ 30 who had been given acyclovir and 27 who had been given placebo were contacted; many of the remainder had moved away or died. The groups were comparable in terms of age, sex, and distribution of the signs and symptoms and were clinically immunocompetent.

On long term follow up, only two (7%) of the patients given acyclovir had post-herpetic neuralgia at the six month and five year follow ups, compared with 10 (37%) in the placebo group at each follow up (difference in proportions 30.4%, 95% confidence interval 10.1% to 50.7%). (Post-herpetic neuralgia was defined as pain persisting for more than a month after the original *Herpes zoster* infection had subsided, and the end point of post-herpetic neuralgia as the time when the patient was finally pain free, as opposed to the time of the first cessation of pain.) There was some evidence that the patients with spinal cord nerve involvement did better with acyclovir, but the numbers were too small for sound conclusions to be made.

No patients developed ocular complications while receiving oral antiviral treatment, whereas half of those given placebo did (table; difference in proportions 50%, 27% to 73%). Ocular signs resolved in all eight patients receiving acyclovir who had ocular signs at the start of the trial, but all six patients given placebo who

had ocular signs at the onset required further topical treatment. (If ocular signs had worsened in the trial, patients were given topical acyclovir with or without steroids later.)

Incidence and outcome of ocular involvement after placebo or oral acyclovir

	Acyclovir (n=15)	Placebo (n=18)
No who developed signs after treatment started	0	9*
No who never developed signs	7	3

*P=0.009, Fisher's exact test.

Comment

This is the first time that patients treated for *Herpes zoster* infection have been followed up for five years. The study takes into account any late recurrence of pain, its long term consequences, and long term ocular involvement.

The incidence of post-herpetic neuralgia in reported series has varied from 6% to 75%, owing to lack of a universal definition and the inclusion of different age groups and follow up times. Post-herpetic neuralgia is age related, having a lower incidence in patients under 60 and persisting for longer in older patients. Some trials have included younger patients (under 60 years). Follow up time after pain has ceased has varied; as pain can recur, unless patients are followed up for some time after the first cessation of pain, its final incidence may be underestimated.

Our results show that in patients over 60 who are at risk of developing post-herpetic neuralgia, oral acyclovir has a preventive role. Oral acyclovir alone, without topical treatment, protects the eye.

The incidence of *Herpes zoster* attacks in older patients is high, and there are long term economic and therapeutic problems in treating established post-herpetic neuralgia and ocular complications. As treating post-herpetic neuralgia is costly and largely ineffective. Preventive measures are to be welcomed.

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- 1 Ragozzino MW, Melton LJ, Kurland LT, Chu CP, Perry HO. Population-based study of herpes zoster and its sequelae. *Medicine* 1982;61:310-6.
- 2 Peterslund NA, Seyer-Hansen K, Ipsen J, Esmann V, Schonheyder H, Juhl H. Acyclovir in herpes zoster. *Lancet* 1981;ii:827-30.
- 3 McGill J, McDonald DR, Fall C, McKendrick GDW, Copplestone A. Intravenous acyclovir in acute herpes zoster infection. *J Infect* 1983;6:157-61.
- 4 McKendrick MW, McGill JI, White JE, Wood MJ. Oral acyclovir in acute herpes zoster. *BMJ* 1986;293:1529-32.
- 5 McGill JI. The enigma of herpes stromal disease. *Br J Ophthalmol* 1987;71:118-25.

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Ethnic variation in epidemiology and rehabilitation of hip fracture

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In Leicestershire 9.3% of the population is of Asian origin, most being from the Indian subcontinent. Only 4.3% of Asians in Leicestershire are aged over 65 years compared with 16.3% of white people. The incidence of hip fracture in Leicestershire is predicted to increase over 10 years by 11.2%,¹ and as a result of the skewed age distribution the vulnerable population (65 years and over) will increase disproportionately among

Asians. Provision will have to be made for the increasing health care burden of this group of patients. We determined the epidemiology of hip fracture between the two groups to help define underlying causes and future allocation of resources.

Patients, methods, and results

We collected data over two years (1991-2) on all patients with hip fracture in Leicestershire,¹ recording demographic data, type of fracture, treatment, length of stay in hospital, and destination of discharge. Ethnic origin was noted as white, Asian, or other. As hip fracture is predominantly a disease of elderly people, we used standardised age groups of 65 years and over and below 65.

The table shows the incidence of hip fracture

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