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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Ethnic origin	Sex	No of population aged:		No of patients with hip fracture aged:		Annual incidence of hip fracture (%)	
		<65 years	≥65 years	<65 years	≥65 years	<65 years	≥65 years
White	M	325 206	51 749	15	189	0.002	0.18
	F	320 524	73 692	76	951	0.01	0.64
Asian	M	38 365	1770	2	16	0.003	0.45
	F	39 201	1754	4	19	0.005	0.54

according to age group, sex, and ethnic group. The average age at fracture was significantly lower in the Asian population (range 42-92 years, mean 76.0 (SD 11.9) years *v* 18-104 years, mean 80.2 (10.3) years; $P < 0.05$ by Student's *t* test). The annual incidence in white people was 0.08% and the age-sex standardised rates for above and below 65 years old in Asians was 0.103% (SE 0.017) (95% confidence interval 0.0703 to 0.136). The ratio of standardised incidence in Asians to the annual incidence in white people was 1.30 (0.94 to 1.79). Neither of these standardised rates was significantly different from the values in white people at the 5% level.

The risk of fracture in men over 65 was significantly higher in Asians (risk ratio 2.5; $P < 0.05$ by a χ^2 test). There were no other significant sex differences (table). The incidence of subtrochanteric fractures was significantly higher in Asians (10% (4/41)) than white people (1.4% (17/1231)) ($P < 0.05$ by Fisher's exact test). Asians stayed longer in hospital (median 21 days, mean 25.5 days, interquartile range 15-91 *v* 15 days, mean 17.6 days, 11-123; $P < 0.05$ by the Kruskal-Wallis test). The percentage of patients returning directly to their place of residence before injury was lower among Asians (22% (9/41) *v* 27% (337/1231)) but not significantly so by χ^2 analysis.

Comment

Osteomalacia may not be a significant predisposing factor for hip fracture.²³ Therefore, although the prevalence of osteomalacia in Asians is higher than that in white people,⁴⁵ our findings of similar standardised

incidences of hip fracture might be expected. As total numbers increase the difference may become significant.

In the Asian immigrant population vitamin D deficiency has gradually become less in children but not adults.⁴ Older citizens are more likely than subsequent generations to abide by their traditions, thereby perpetuating vitamin D deficiency among first generation Asian immigrants. Subtrochanteric fractures are more commonly associated with diseased bone than are other types of fracture. Asians had a much higher incidence of such fractures and elderly Asian men also have a higher incidence of fracture. These findings suggest that the cause of fracture may be different in Asians, at least in a proportion of patients, and could be vitamin D deficiency.

Postoperative mobilisation and nursing care are hindered by language barriers. Cultural differences in the way that families participate in aftercare may also play a part. The financial implications are considerable: in Leicester the extra bed days required for Asian patients cost about £32 000 annually.

These problems may be tackled by improved communication with and education of families and patients, perhaps with easier access to an interpreter on the wards. Pathophysiological differences probably caused by osteomalacia may become less influential over time. At present, however, proportionately more resources will be required to cater for the needs of the aging Asian population than for their white counterparts.

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- 1 Anderson GH, Raymakers R, Gregg PJ. The incidence of proximal femoral fractures in an English county. *J Bone Joint Surg Br* 1993;75:441-4.
- 2 Wilton TJ, Hosking DJ, Pawley E, Stevens A, Harvey L. Osteomalacia and femoral neck fractures in the elderly patient. *J Bone Joint Surg Br* 1987;69:388-90.
- 3 Robinson CM, McQueen MM, Wheelwright EF, Gardner DL, Salter DM. Changing prevalence of osteomalacia in hip fractures in southeast Scotland over a 20 year period. *Injury* 1992;23:300-2.
- 4 Stephens WP, Klimiuk PS, Warrington S, Taylor JL, Berry JL, Mawer EB. Observations on the natural history of vitamin D deficiency amongst Asian immigrants. *Q J Med* 1982;202:171-88.
- 5 Stamp TCB, Walker PG, Perry W, Jenkins MV. Nutritional osteomalacia and late rickets in Greater London, 1974-1979: clinical and metabolic studies in 45 patients. *Clin Endocrinol* 1980;9:81-105.

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WAYS WITH WORDS

Nouns as verbs

The reviewer of a recent travel book wrote, "I wish he had not used 'tourist' as a verb"—a sentiment I wholeheartedly endorse. Many years ago Karl Sabbagh ridiculed the practice of using nouns and adjectives as verbs by giving hilarious examples like "I articulated for *World Medicine* once a month," and "Doctor, come quick, my little boy has illed." Unfortunately, his pioneering effort has failed to stem the flow.

Trendy managers used to be the chief culprits: they actioned, prioritised, diarised, tasked, trialled, and scapegoated. Today the ugly habit infects even high society. Thus, Mary Soames in an interview: "I'd served in mixed anti-aircraft batteries, and inasmuch as it was possible for women in England, I'd been actioned against the enemy."

Doctors and other health workers are not exactly blameless. We talk about hospitalised (too ingrained to eradicate but at least better than hospitalled?), digitalise, heparinise, and—yes—surgerise; even worse, suicided and parenting. "Twin ponies that she [a research assistant] parented with the aid of a microscopic fragment of razor blade."

British Rail, of course, had to get in on the act: "The train will be platformed at the station"; and road transport officials proclaim the joys of dualled highways. But the most flowery examples are to be found among journalists,

usually of *Guardian* persuasion, who write (do they talk the same way?) of crafted, gifted to, critiqued, themed, guested, and partying. Among my favourites are: "She messengered it to me on my birthday"; "Bumble bees nectared on purple looestrife"; and a strange television variant, "Blood donors have doned their blood at blood doning centres."

Critics compete for the title of the most precious book reviewer: "I have read it twice . . . and still feel fazed at the prospect of nutshelling it here" and "[He] lenses his reading of Huysman's novels through the literary and cultural history of nineteenth century bachelordom." Sadly, the habit has spread to writers of serious fiction; Peter Carey in *Oscar and Lucinda* tortuously authors (sic) the following: "He could not bear that they invite him to accompany them on the train to farewell the boy."

Does it matter? Yes, because it is inelegant and threatens style, interrupts the reader's flow with its oddity, and is in danger of becoming jargon and cliché. And it can distort meaning: "This machine is alarmed" (because it is afraid of being burglarised?) is not the only example of ambiguous meaning. Could we defenders of the crafting of English persuade editors to action the blue pencilling of such showcased examples?—ALEX PATON is a retired consultant physician in Oxfordshire