

hydrochloride is only moderately effective against influenza, and the different results in trials in two distinct epidemic years suggest that it needs a background of antibody to be effective at all.^{4 5} (Cynics might say it also needed a fairly stiff backing of statistics.) There are side effects (dyspepsia, insomnia, and some psychological effects), even at modest doses, and these drawbacks must be weighed against its value in what is usually not a fatal illness. Furthermore, vaccination against influenza, even though not totally effective and needing to be repeated, might prove cheaper than widespread prophylactic chemotherapy. Finally, resistant strains of influenza virus can develop, with all that this entails. Nevertheless, if an influenza virus with clinical effects resembling those of the 1918 pandemic were to appear then amantadine hydrochloride might well be tried as a heroic measure in ill patients, prophylactically in certain patients at obvious risk, or even as a widespread prophylactic.

There may also be uses for amantadine outside influenza. For example, lymphocytic choriomeningitis virus is an arenavirus, the group to which Lassa fever virus belongs, and amantadine might be worth trying in the treatment of this type of illness. New derivatives being tried⁶ have a greater anti-influenza activity. So for the time being it may seem sensible to rely primarily on vaccination against influenza, but to keep amantadine in mind (and perhaps on the pharmacy shelf) as well.

¹ Davies, W L, *et al*, *Science*, 1964, **144**, 862.

² Welsh, R M, *et al*, *Virology*, 1971, **45**, 679.

³ Wink, C A S, ed *Symmetrel in Virology*. Macclesfield, Geigy Pharmaceuticals, 1975.

⁴ Galbraith, A W, *et al*, *Lancet*, 1969, **2**, 1026.

⁵ Galbraith, A W, *et al*, *Bulletin of the World Health Organisation*, 1969, **41**, 677.

⁶ Beare, A S, Hall, T S, and Tyrrell, D A J, *Lancet*, 1972, **1**, 1039.

Worldwide decline in dizygotic twinning

Dizygotic (non-identical) twins are less common than they used to be. This is so in countries all over Western Europe, and in Australia, New Zealand, the United States, Japan,¹ Canada,² Hungary,³ Poland,⁴ and in Jewish births in Israel.⁵ In those countries for which data are available the decline cannot be explained by changes in maternal age, and in Italy⁶ (the country for which the most detailed statistics are available) the decline has been shown to be real even when allowances are made for maternal age and parity. It seems that the same is true for Holland.⁷ In the United States the decline has not been so striking as in some other countries, perhaps because it may have been counteracted by the effects of drugs which stimulate ovulation—the age-specific proportions of white live births in twin deliveries seemed perhaps to rise rather than fall from 1962 to 1968, whereas the comparable proportions for non-whites showed no such tendency. Since then there has been a decided decline from 1968 to 1971 for both blacks and whites (perhaps as multiple pregnancy has become less of a hazard in the treatment of infertility).

The onset of the decline seems to date from the late 1950s or early 1960s. Triplet rates seem to have shown the same sort of decline as dizygotic twinning rates.^{4 7} Earlier secular trends in twinning, reported in the United States⁸ from 1922 to 1958

and in Scandinavia⁹ over several centuries have not been wholly explained, but they were much less abrupt than those seen in Europe in the 1960s.

Contrary to a suggestion by several authors,^{2 10} the decline seems far too sharp to be ascribable to the smaller size of the families chosen nowadays by highly fecund women (who are more likely than others to produce dizygotic twins).¹¹ Neither does it seem likely that ovulation inhibitors are responsible: the decline seemed to start in many countries before the introduction of the contraceptive pill, and it is occurring in some countries where the pill is not used extensively. Nor does it seem that increasing spontaneous abortion can be the cause: monozygotic twinning rates are showing no similar trend.^{1 10}

Almost all the data relate to developed societies. Nevertheless, non-Jewish births in Israel have probably not undergone a decline, whereas the Jewish births have.⁵ If this difference is real—and these statistics must be treated with caution—it may point to an environmental agent of the sort conjectured by James¹—pesticides or perhaps stilboestrol, widely used as a growth promotant for livestock. No empirical evidence for or against these speculations has been offered. Possibly, though, some light will be thrown on the action of stilboestrol by recent measures by the US Food and Drug Administration, which banned stilboestrol in cattle feed in 1972 and in implants in 1973 and then withdrew the bans in 1974. Only, however, if the US Vital Statistics for the first half of the present decade are tabulated will it be possible to judge whether these administrative vagaries in fact had any effect on dizygotic twinning rates. But it is disquieting that something should have affected the human reproductive system for 15 years without anyone having any evidence of what it is.

¹ James, W H, *Journal of Biosocial Science*, 1972, **4**, 427.

² Elwood, J M, *British Journal of Preventive and Social Medicine*, 1973, **27**, 236.

³ Czeizel, A, Supplement to Vol 22, p 214, *Acta Geneticae Medicae et Gemellologiae*, 1974.

⁴ Rola-Janicki, A, Supplement to Vol 22, p 202, *Acta Geneticae Medicae et Gemellologiae*, 1974.

⁵ James, W H, *New England Journal of Medicine*, 1973, **289**, 1204.

⁶ James, W H, *Acta Geneticae Medicae et Gemellologiae*, 1975, **24**, 9.

⁷ Hoogendoorn, D, *Nederlands Tijdschrift voor Geneeskunde*, 1973, **117**, 805.

⁸ Jeanneret, O, and MacMahon, B, *American Journal of Human Genetics*, 1962, **14**, 410.

⁹ Eriksson, A W, *Commentationes Biologicae*, 1973, **64**, 1.

¹⁰ Kruger, J, and Propping, P, *Deutsche medizinische Wochenschrift*, 1976, **101**, 475.

¹¹ James, W H, *Annals of Human Biology*, 1975, **2**, 81.

Change at the *Lancet*

Fictional doctors always read the *Lancet*, but its role as a public institution is one of the burdens that its editor has to bear. Dr Ian Douglas-Wilson succeeded Sir Theodore Fox in 1965 and he retires this month having earned himself a secure niche in journalistic immortality. He will always be remembered for his assertion that in selecting articles for his journal an editor should aim to please himself; if he could not do that, he would certainly please nobody else. In following this advice at the *Lancet* Dr Douglas-Wilson also pleased a great many readers—and indeed at the journal's 150th anniversary dinner he was able to describe the editorial staff, the contributors, and the readers of the *Lancet* as members of a club. It is a club which anyone may join if he has an inquiring mind and has