lowering agents are being introduced and the effect of existing cardiovascular drugs on 'lipid profiles' continues to be a subject of controversy. Two recent reports in *Nature* describe further advances of great interest.

The first concerns the results of the European Cooperative Study Group trial of tissue plasminogen activator (TPA) in myocardial infarction and a Harvard trial of TPA in pulmonary embolism. In the myocardial infarction study mortality at two weeks was reduced by 51% in patients treated with TPA compared with placebo. In the Harvard study TPA was shown to be superior to the currently-used urokinase in clot dissolution and reduction of pulmonary artery pressure. TPA is astonishingly expensive at $2200 a dose, and another new thrombolytic agent, eminase, a chemically modified form of streptokinase, is also likely to be available in the 1990s, costing a mere $1000 a dose. Despite these astronomical prices, sales of TPA during 1988 are predicted to be as high as $350 million.

The second report concerns the discovery of a new, potent vasoconstrictor peptide produced by vascular endothelial cells. Christened endothelin by the Japanese group from the University of Sukuba, it is a 21-amino acid peptide transmitter which is part of a novel cardiovascular control system. Rather like angiotensin, it is generated by an unusual proteolytic process in which an 'endothelin-converting enzyme' is involved; perhaps we will see ECE inhibitors by the year 2000?

(R.J.)

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INFECTIOUS DISEASES UPDATE: AIDS

Progression of HIV infection towards AIDS

Researchers at the University of California and San Francisco, basing their findings on a three year study,[1] predict that half of those infected with human immunodeficiency virus (HIV) will develop the acquired immune deficiency syndrome (AIDS) within six years and three-quarters will develop AIDS or AIDS-related conditions.

Dr Andrew Moss, Associate Professor of Epidemiology at the San Francisco General Hospital, who has also recently spent considerable time on the epidemiology of AIDS in the United Kingdom, followed 288 men with HIV for three years to determine progression towards AIDS and AIDS-related complex (ARC). Twenty-two per cent progressed to active AIDS, 19% to ARC and another 24% had laboratory abnormalities highly predictive of AIDS or ARC. Extrapolating from those figures, the team made predictions for a six-year progression rate.

Five specific 'markers' in the blood were found to independently predict progression to AIDS; the concentration of beta 2 microglobulin (the best single predictor of AIDS), the presence of HIV p24 antigen, the haematocrit level, and both the number and proportion of T4 lymphocyctes. The researchers found that patients having abnormal values of two or more of these markers had a 57% chance of developing AIDS over the next three years; those patients who were normal on all markers had a progression rate of only 7%.

Although it is still not known if everyone infected with HIV will go on to develop AIDS, it has become obvious that being infected is more likely to be serious than was originally thought.

Suicide and AIDS

Peter Marzuk and colleagues recently reported that men with a diagnosis of AIDS are at high risk of suicide, especially during the six months after diagnosis.[2] The researchers found that men with AIDS aged 20 to 59 years were 36 times more likely to commit suicide than were similarly aged men without such a diagnosis. These findings underline the importance of pre- and post-test counselling and of physicians being aware and sensitive to the potential psychological instabilities of individuals infected with HIV.

Global AIDS data

As of 30 April 1988, the World Health Organization in Geneva has received reports from 138 countries of a total of 88 081 cases of AIDS. An additional 36 countries have reported 'zero cases'.

The distribution of cases by continent is as follows:

Africa: 10 639 cases in 42 countries
Americas: 65 464 cases in 42 countries
Asia: 238 cases in 22 countries
Europe: 10 851 cases in 28 countries
Oceania: 889 cases in 4 countries.

AIDS and HIV in the UK

The cumulative total of AIDS cases in the UK to 31 March 1988 is 1429. The distribution of cases for each country is as follows: England 1352; Scotland 52; Wales 20; Northern Ireland five.

The cumulative total of reports of HIV antibody persons in the UK to 31 March 1988 is 8443. The distribution of reports for each country is as follows: England 6861, Scotland 1436, Wales 102, Northern Ireland 44.

Transmission of HIV

Dr Kenneth Castro and colleagues at the US Centre for Diseases Control and the New York City Department of Health, conducted a follow-up study[3] of AIDS patients reported to the centre to 30 September 1987, who could not be classified as having any known risk factor for HIV transmission.

Of the 2059 patients (5%) initially not known to have any risk factors, follow-up information was obtained in 1138; 825 (72%) were ultimately shown to have risk factors and 32 (3%) were incorrectly diagnosed as having AIDS.

Of the remaining 281 (25%), risk factors could not be identified. However, for 178 of these patients who had been interviewed with a standard questionnaire, 72% reported a history of sexually transmitted diseases or sexual contact with prostitutes. It is considered that by continuing to improve the sensitivity of interviewing, even more accurate information will be uncovered.

It is therefore still correct to state that although the virus has been detected in saliva, tears and urine, no epidemiological evidence exists for believing HIV may be transmitted through these body fluids.

References

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