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New series: AIDS and the Lung

Introduction

D M MITCHELL, A A WOODCOCK

By the end of June 1989 the total number of cases of AIDS reported world wide was 167 373, although the World Health Organisation Global Programme on AIDS estimates the actual figure to be closer to 480 000.[1] In the United States 95 561 cases have been reported, in Europe 22 609 cases (United Kingdom 2 296 cases), and in Africa 30 064 cases, although here the actual number is estimated to be far greater. The actual number of people who have been infected with HIV but remain clinically well at the moment is unknown but is probably considerably greater than the number of people with AIDS to date. A recent study of a cohort of subjects seropositive for HIV suggests that most people infected with HIV will eventually develop AIDS.[2]

The pattern of disease in Europe has closely followed that of the epidemic in the United States, with most cases occurring in homosexual and bisexual men, whereas in Africa the disease occurs predominantly in heterosexuals. In 1983 the relation between infection with HIV and the development of AIDS was shown,[3,4] and it became clear that many of the infectious manifestations of AIDS resulted from HIV induced damage to the immune system.[5] The profound depression of cell mediated immunity results in a spectrum of major opportunist infections, the lung being the organ affected most often. In an early series of 1067 AIDS patients 41% had pulmonary complications.[6] Of these, 85% had *Pneumocystis carinii* pneumonia, 17% cytomegalovirus infection, 17% *Mycobacterium avium-intracellulare*, 4% *M tuberculosis*, 4% legionella infection, and 2% pyogenic bacterial infection. A further 8% also had Kaposi's sarcoma. Infection with fungi, herpes simplex, nocardia, and *Toxoplasma gondii* were rare. Since this early report pneumocystis pneumonia has remained the main opportunist infection seen in patients with AIDS in Europe and North America, being the AIDS defining diagnosis in 64% of cases and occurring in up to 80% of all AIDS cases at some stage[7]; it is, however, less common in Africa, where tuberculosis is a major opportunist infection. In addition, pneumonia due to pyogenic bacteria, pulmonary infection with *M tuberculosis*, and lymphoid interstitial pneumonitis have been recognised increasingly as being important in AIDS related lung disease,[7–11] and the lung may be extensively affected by Kaposi's sarcoma.[12,13]

The numbers of cases of AIDS are likely to increase as the epidemic trend continues, and as the lung is the most common site for severe opportunist infections respiratory physicians world wide are likely to participate increasingly in managing patients with AIDS. As experience of managing such patients is variable among respiratory physicians we have solicited a series of articles on AIDS to review the problems of diagnosis and management. The speed of developments in this subject means that recommendations change rapidly, and indeed alterations have already been made to some articles immediately before publication to incorporate such developments. Although much of what is written inevitably will be obsolete five years from now, we believe that the authors of the articles in this series have provided authoritative state of the art reviews that reflect current views. They were asked to emphasise practical points, and we hope that this will be valuable to respiratory physicians, particularly those with limited experience of dealing with AIDS and those concerned with implementing protective measures in bronchoscopy units and pulmonary function laboratories.

D M MITCHELL
St Mary's Hospital
London W2 1NY
A A WOODCOCK
Wythenshawe Hospital
Manchester M23 9LT

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