

Mycobacterium gordonae: a new pathogen?**Discussion**

Non-tuberculous mycobacteria have been the focus of increasing interest as their role as occasional human pathogens has been recognised. *M. gordonae*, formerly known as *Mycobacterium aquae*, is considered to be among the least pathogenic of this group of organisms and when cultured is usually thought to be a water-borne contaminant. A cluster of *M. gordonae* isolates were obtained from bronchoscopy specimens from 52 patients in one hospital but in none of these was this organism thought to be causing infection.³ There have been four reports of disseminated *M. gordonae* infection associated with meningitis in a hydrocephalic child who had multiple shunts, prosthetic aortic valve endocarditis, olecranon bursitis, and peritonitis,^{4,5} and two cases associated with malignancy.⁶ Only one case of pulmonary infection with *M. gordonae* has been reported—a chronic alcoholic who died with extensive pulmonary cavitation and fibrosis. In both of our cases, acid and alcohol fast bacilli were seen on examination of the initial sputum smear, but *M. tuberculosis* was not grown and large numbers of colonies of *M. gordonae* alone were isolated on culture. We are aware of the possibility that *M. tuberculosis* could have been masked by an overgrowth, but the colonial appearances of the organisms isolated make this unlikely. The organisms fulfilled the biochemical criteria for *M. gordonae*, being scotochromogenic at both 25°C and 37°C, nitrate reductase negative, and Tween hydrolysis test positive. In the second case a tuberculin test also gave a negative result, confirming that the infection was probably due to a non-tuberculous organism. Despite the *in vitro* sensitivity test results, both patients responded to standard antituberculosis chemotherapy and repeat sputum cul-

tures failed to grow any organisms. This suggests that, as with other non-tuberculous mycobacterial infections,⁷ there is a poor correlation between *in vitro* resistance and the results of treatment.

During 1983 and 1984 *M. gordonae* was isolated from specimens sent to our laboratory from 12 other patients. In none of these cases was this organism thought to be causing infection. The findings in our two cases suggest that *M. gordonae* may cause pulmonary disease and should be considered as an occasional pathogen.

We wish to thank Mr A Rayner and the staff of the bacteriology departments at the City Hospital, Edinburgh, and the Victoria Hospital, Kirkcaldy.

References

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- 2 Wolinsky E. Non-tuberculous mycobacteria and associated disease. *Am Rev Respir Dis* 1979;119:107–57.
- 3 Steere AC, Corrales J, von Graevenitz A. A cluster of *Mycobacterium gordonae* isolates from bronchoscopy specimens. *Am Rev Respir Dis* 1979;120:214–6.
- 4 Craig CP, Kreitzer SM. Non-tuberculous mycobacterial infections: human infections due to *Mycobacterium gordonae*. *Infect Dis Rev* 1980;6:79–88.
- 5 Kurnik PB, Padmanab LU, Bonatsos C, Cynamann MH. *Mycobacterium gordonae* as a human hepato-peritoneal pathogen, with a review of the literature. *Am J Med Sci* 1983;285:45–8.
- 6 Feld R, Bodey GP, Groschel D. Mycobacteria in patients with malignant disease. *Arch Int Med* 1976;136:67–70.
- 7 Crofton J, Douglas AC. *Respiratory diseases*. 2nd ed. Oxford: Blackwell Scientific Publications, 1981:304.

Book notices

Lung Biology in Health and Disease—Vol 25: Gas Mixing and Distribution in the Lung. Ludwig A Engel, Manuel Paiva. (Pp 416; \$75.) Marcel Dekker, 1985.

Gas Mixing and Distribution in the Lung, edited by Ludwig Engel and Manuel Paiva, represents the latest addition to the series of monographs in the series "Lung Biology in Health and Disease". The editors, a physician and physicist, are to be congratulated on the imaginative concept of inviting contributions not only from physicians but also from scientists and engineers. As early as 1667 it was recognised that the flow of fresh gas into the lungs was fundamental to the preservation of life. Many defects remain in our knowledge of the disorders of ventilation and gas mixing, which are so often impaired in the early stages of respiratory disease. The topics covered include concepts of molecular diffusion, anatomical factors influencing gas mixing and distribution, gas transport in the conducting airways, alveolar ventilation at high frequencies, regional ventilation distribution, and gas mixing in the lung. While each chapter is autonomous, the global concept is apparent and the book provides an invaluable survey of this important, ill understood area of respiratory physiology. Furthermore, the text does not lose sight of the practical clinical problems confronting the respiratory physician. This is a well written, carefully illustrated text, with accurate and up to date references. Editorial discipline has prevented the repetition which readers find irritating in multi-author volumes. The book is highly

recommended for the library of respiratory physiologists; individual chapters would be particularly helpful for a research worker embarking on studies in this interesting area of investigation.—RMC

Recent Progress in Mitral Valve Disease—Carlos Duran, William W Angell, Allen D Johnson, James H Oury. (Pp 483; £55.) Butterworths, 1984.

The second international symposium on the mitral valve was held in California in 1982. This book contains the contributions made by acknowledged authorities from both the United States and Europe. The emphasis is on the function of the normal and diseased valve and surgical reconstruction or replacement. Given the two years that have elapsed since the symposium, this book offers a most valuable and comprehensive survey of the subject, which should be an essential addition to any cardiac surgery unit library. It is not easy to select from the many admirable contributions, but the thoughtful and amusing review by Donald Ross and the section that attempts to obtain a consensus view on the ideal valve replacement are of particular interest. The latter employs a novel way of eliminating personal bias. The discussants, most of whom are associated with a particular prosthesis or technique, are asked to name their *second* choice of valve substitute—with reasons. The management of congenital abnormalities is dealt with comprehensively. Cardiac surgeons will find much to stimulate and interest them in this book.—DBC