

Book Review

Emerging Infections. R.M. Krause, Editor. Academic Press, New York, 1998, 513 pages.

Emerging Infections is the first volume in a new series entitled Biomedical Research Reports, edited by John Gallin and Anthony Fauci. The volume contains 17 chapters, all outstanding and for the most part both timely and comprehensive, written by experts in the field. After an intellectually stimulating introductory chapter by Richard Krause, we are treated to an analysis of epidemics by one of the supreme authorities, Roy Anderson of Oxford University. Included here is a valuable discussion on the transmission of microbial infections in populations as well as the development of drug resistance.

Chapters on emerging bacterial diseases include a superb one on Persisting Problems in Tuberculosis, by McKinney, Jacobs, and Bloom, which is right up to date yet includes fascinating literary quotes, from Charles Dickens to Sir Arthur Conan Doyle. The possible role of mobile genetic elements in the emergence of new strains of cholera is briefly discussed by Rubin, Waldor, and Mekalanos. *Escherichia coli* O157:H7 and its evolution as an emerging infectious disease are considered by Whittam, McGraw, and Reid. A useful overview of group A streptococcal diseases, combined with an overview of staphylococcal toxic shock syndrome, is given by Musser and Krause and followed by a scholarly account of Lyme disease by Allen Steere. Finally, Davies and Webb devote nearly 40 pages to a discussion of the emergence of antibiotic resistance in bacteria.

There are six chapters on viral diseases, beginning with Robert Webster on influenza, the classic pandemic disease threat. Webster's review provides a remarkably current description (up to mid-1997) of what we know about influenza pandemics and their origins, including a discussion of the first H5N1 influenza case in a human in Hong Kong. The emergence of dengue

and the complexities of dengue hemorrhagic fever and dengue shock syndrome are reviewed by Holmes, Bartley, and Garnett of Oxford University, with a strong emphasis on the epidemiologic aspects. This discussion is followed by an authoritative review of the AIDS epidemic by Quinn and Fauci, who include sobering predictions of future epidemics in Asia and Africa.

A short chapter on hantavirus by Nathanson and Nichol is followed by a searching account of Ebola virus emergences, including fascinating speculations on their possible origin, by Murphy and Peters. The final chapter, related to virus diseases, by Tabachnick, considers arthropod-borne pathogens and is dedicated to George Craig, a leader in the field of vector biology.

Two chapters are devoted to emerging parasitic diseases. Adel Mahmoud reviews *Giardia*, *Cryptosporidium*, *Isospora*, and *Cyclospora* organisms, whose role in human diseases has only recently been recognized. Karen Day of Oxford University discusses malarial infection and disease and the factors that have led to the current world in which the effects of malaria in many regions are the same or worse than at the turn of the century.

Finally, a chapter on transmissible spongiform encephalopathies by Hope brings us up to 1996 when new variant Creutzfeldt-Jakob disease (bovine spongiform encephalopathy agent in humans) was first recognized.

Emerging Infections sets a high standard for future volumes in this series. Nicely produced, it is recommended reading for everyone with an interest in infectious diseases and in strategies for research, understanding, and control of the complex factors that lead to infectious disease emergence and reemergence.

Brian W. J. Mahy

Centers for Disease Control and Prevention, Atlanta,
Georgia, USA