BOOK REVIEW


This encyclopedia is an ambitious undertaking involving the cooperation of 88 authors from 19 countries. It contains much-needed, up-to-date basic information on the transmission of a broad range of infections. Everything from the distribution of infection, through vector biology, epidemiology, clinical symptoms, diagnosis, transmission dynamics, and treatment and control is included. Although the encyclopedia addresses infections and the role of arthropods in their transmission, it nevertheless includes brief accounts of various categories of arthropods, such as mosquitoes, midges, lice, and ticks. Following each entry is a selected bibliography, to aid further reading on the topic.

Arthropods act as vectors of infectious agents in two ways—mechanically or biologically. In mechanical transmission, insects and other arthropods acquire the pathogens from one source and transport it to other locations, where it may infect a new host. Biologically transmitted organisms undergo a cycle of development in the vector before transmission takes place. The role of arthropods in the transmission of anthrax may be medical or biologic. Although biologic transmission of anthrax has been shown with mosquitoes and stable flies, insects generally are not believed to play a major role in epizootics. Ants and beetles have been implicated, however, in transferring anthrax spores from buried carcasses back to the surface with the potential to initiate outbreaks.

The 150 entries in this encyclopedia do not include all arthropod-transmitted infections of human and domesticated animals. This would have been an impractical task considering that > 300 viruses are transmitted by arthropods. The selection of entries by Service, the editor, based on the advice of 5 international experts, covers all of the most important infections. Some parasites may have been excluded because the role of arthropods in their transmission either as biologic or as mechanical vectors is not well established. For example, Dipylidium caninum is not included because fleas are regarded as intermediate hosts and not vectors in the transmission of this infection.

My one criticism refers to the lack of an index at the end of the book. It took me a while to locate the entry on lymphatic filariasis, which was presented as either Bancroftian filariasis or Brugian filariasis. Nevertheless, this encyclopedia is an excellent reference source for students and researchers working in medical and veterinary science and related fields such as parasitology, virology, and entomology. It is also a good read for the layperson interested in finding out what transmits an infectious agent, where it can be found, and whether it can be cured or prevented. The book looks tidy with clear legible print and diagrams and photographs when needed.

This encyclopedia is not a specialized medical or veterinary textbook. Its main strength is a clear presentation of up-to-date fundamental information on the subject. The editor is to be applauded for giving the opportunity to lesser known but more than capable young and upcoming scientists, such as M. Renshaw and J. B. Silver, who wrote the contribution on human malaria. An incredible amount of editorial work has gone into the compilation of this book, and Service is to be congratulated for a splendid achievement.

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