

Book Review

Q fever. Vol. 1. The Disease. THOMAS J. MARRIE (Editor). Pp. 255. CRC Press (Boca Raton, USA); 1990. £104.

The nomenclature of disease is a source of considerable interest and a frequent cause for debate. Alphanumeric descriptions are unusual but in the case of infectious diseases precedents have been set in the form of first, second, third, fourth, fifth and sixth diseases used previously to describe scarlet fever, rubella, measles, Filatow–Duke's disease, erythema infectiosum and exanthem subitum respectively. This contrasts with the hepatotropic viruses which are now classified as hepatitis A–E, with others no doubt looming on the horizon.

The term Q fever presents its own fascination, resulting in part from its relative infrequency, its potential to cause atypical pneumonia and culture-negative endocarditis, the inability to isolate the causative agent in the absence of appropriate containment facilities and a serological diagnosis in which Phase II antibodies somewhat perversely indicate acute infection, while Phase I antibodies reflect chronic disease.

Edward Derrick, while Director of the Laboratory of Microbiology and Pathology for the Queensland Department of Health in Brisbane, defined the characteristics of the disease and proposed the name Q fever (query and not Queensland). Although Derrick was unable to isolate the causative agent, further studies on emulsions of infected guinea-pig liver led to the identification of the causative agent by Macfarlane Burnett in Melbourne. On the other side of the world Herold Cox joined the staff of the Rocky Mountain Laboratory in Hamilton, Montana in 1936 and was successful in cultivating the organism in embryonated hens eggs. These achievements were eventually recognized by the renaming of the organism as *Coxiella burnetii* in honour of Cox and Burnett. (Interestingly both investigators died in the same year, 1986.)

As a zoonosis Q fever is widely distributed. Although sheep are the principal reservoir, goats and cattle predominate in certain countries. For example, in Greece it has been known as 'Balkangrippe', and was responsible for 'Goat Boat Fever'. In some parts of the world Q fever is more common than in the UK and is on the increase. For example, in Switzerland the infection continues to spread among cattle with over half exhibiting serological evidence of exposure. This contrasts with the situation in Ireland where the first case of Q fever was reported in 1968. Transmission to man may be clearly linked to animal exposure. Yet the continuing recognition of isolated and sometimes epidemic disease in the absence of animal contact is a source of continuing puzzlement and has invoked airborne spread; in Ireland the collared dove (*Streptopelia decaocto*) has been proposed as the vector.

Each chapter of this multi-authored book provides an authoritative review of the many fascinating aspects of this disease. There are comprehensive contributions on the clinical, pathological and serological features: the true incidence of Q fever is uncertain and reflects variation in awareness of the disease and the availability of serological tests. Specific chapters address the issue of Q fever hepatitis and endocarditis. The current chemotherapeutic strategies for the control of *Coxiella burnetii* infection are by no means ideal: the literature is unfortunately littered with optimistic anecdotes yet rifampicin and tetracycline remain the mainstay of therapy.

A thoughtful analysis of the possible role of *C. burnetii* as a perinatal pathogen, while presenting no firm conclusions, is a model of the scientific method applied to a critical analysis of the literature which is both enjoyable and instructive in its own right. The monograph concludes with a review of the role of immunization in the prevention of this disease.

This book is a work of reference and one which will hopefully be readily available in libraries and also on the bookshelves of specialists in microbiology and infectious diseases. Its message deserves a wide audience since my conclusions from reading this monograph are less than reassuring and indicate that we have much to learn before the epidemiology, biology, veterinary and human control of Q fever can be achieved.

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