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B. Kaplan, L.H. Kahn, T.P. Monath (Eds.), ‘One Health-One Medicine’: Linking Human, Animal and Environmental Health, Veterinaria Italiana, vol. 45, January–March 2009, ISBN 978-88-901726-0-1, 215 pp.

The recent emergence of diseases such as highly pathogenic swine and avian influenza and severe acute respiratory syndrome (SARS) has heightened awareness of the link between disease in humans, livestock and wild animals. This monograph, from the Veterinaria Italiana series, edited by Kaplan, Kahn and Monath, is an eclectic collection of 12 papers that sets out to establish and develop the concept of ‘One Health–One Disease’ and the linking of human, animal and environmental health. This highly ambitious, overarching idea seeks to forge cross-disciplinary collaboration in such diverse areas as public health policy, animal and environmental health and biomedical research for the mutual benefit of all.

The opening chapter introduces the ‘One health’ concept through providing an overview of the philosophy underpinning the project and then expands the concept by succinctly summarising the key themes of each of the subsequent chapters. There follows a chapter containing an interview with the late Ronald M. Davis, former President of the American Medical Association (AMA), who, along with Roger K. Mahr, the President of the American Veterinary Medical Association, was instrumental in getting the ground-breaking ‘One health’ resolution adopted by the AMA in June 2007.

The subsequent chapters flesh out numerous interesting examples from around the globe of how this integrative health concept can benefit each of the collaborating disciplines. These include the development of concepts such as ‘integrated surveillance’ and the flagging of ‘sentinel health events’ (disease events that warn of emerging threat to human or animal health). The creation of ‘Canary’ databases and surveillance systems are described, that warn of the ‘shared risk’ to humans and animals posed by pathogens such as West Nile virus and by environmental hazards such as heavy metal or algal bloom poisonings. The book elaborates on how research collaborations between physicians, veterinarians and microbiologists are exploring topics such as the links between Crohn’s and John’s disease and the virulence mechanisms of enterohaemorrhagic Escherichia coli.

It is intriguingly noted within the text that in the last 60 years, 60% of the infectious diseases that have ‘emerged’ in humans are of wildlife origin and, of these, 22% are vector-borne. The authors indicate how such disease emergence correlates with broader socio-economic, ecological and environmental factors. In a Chapter on plant health, the link between plant and both human and animal health is developed through the concepts of food safety and security. Mycotoxicosis is highlighted as an example of a ‘cross-kingdom’ disease and the National Plant Diagnostic Network in the USA is cited as an example of how human and animal health agencies could gain from the collaborative telecommunications strategies used by the plant health community. Each of the essentially ‘stand alone’ chapters is thoroughly referenced which facilitates the tracing of the source literature.

The notion that the ‘One health’ concept is something completely novel is dispelled by a paper on how the University of Pennsylvania’s Schools of Medicine and Veterinary Medicine have been training students and carrying out biomedical research in an integrated, collaborative way for over a century. Examples are cited of how such an approach can be further developed in areas such as translational medicine and in the clinical assessment of candidate drugs for humans in veterinary patients.

There is useful discussion of the barriers that have heretofore hindered interaction between medical physicians and veterinarians and that the ‘One health’ concept strives to circumvent. These include how medical and veterinary professionals are traditionally segregated from the time of their undergraduate training and how there is insufficient ‘cross-talk’ in the operation of human and animal disease surveillance systems.

Inevitably, given this book is a compilation of a number of ‘stand-alone’ papers or essays, there is repetition and duplication of material, so that, for example, the ‘One health’ concept is defined and explained too many times! Also, the chapter on tuberculosis, while very informative and wide-reaching in scope, is perhaps too detailed for the purposes of this monograph.

While of some interest to the generalist veterinarian, this book should particularly engage those involved in the design and implementation of animal and public health policy. The philosophy underpinning the ‘One-health’ approach is both relevant and timely given ongoing global human and animal health threats and it is likely that this book will have an important role in an ‘opinion-forming’ capacity, informing debate on how best to develop human, animal and environmental health in a mutually-beneficial, integrated manner. To paraphrase from one of the chapters: one hopes that attention to the ‘One health’ concept will bring us to a ‘tipping point’ where rhetoric translates into the multidisciplinary focus and action necessary to achieve its goals. ‘Cometh the hour, cometh the book’!

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