

BOOK REVIEW

IMMUNOLOGY AND IMMUNOPATHOLOGY OF DOMESTIC ANIMALS

by Richard G. Olsen and Steven Krakowka. Charles G. Thomas Publ.  
Springfield, Illinois, USA, 1979, 309 pp.

Up to now only two or three books have been published which are specifically devoted to veterinary immunology. This is in contrast to the many volumes on basic and clinical immunology in human medicine. So, more than in medicine, it is still a challenge to write a book on clinical immunology in veterinary medicine. And, on the other hand, the publishing of such a book will receive more attention from the intended readership.

This text is divided into 17 chapters contained in 4 sections: "Principles of Immunology", "Methods for evaluating the Immune Response", "Immunopathology" and "Principles of Immunoprophylaxis". It is nicely printed, reads easily and the division of the sections and chapters is logical. It would be impossible to expect a text of over 300 pages to have no mistakes. However, some of the mistakes are annoying such as the repeating of sentences on page 97 and the wrong spellings of the names of bacterial species such as *Cbt.parvulum* (a synonym of *Listeria!*) instead of *Cbt.parvum*, *Trep.hypodysenteriae* instead of *Trep. hypodysenteriae* and *Mycobacterium avis* instead of *Mycobacterium avium*. These errors will no doubt be corrected in a future edition.

A special compliment has to be made to the designer of the outstanding and very instructive illustrations with comprehensive and self-explanatory legends. Tables and figures are used throughout the book and are particularly helpful for the purpose of summarizing or comparing information.

The chapters dealing with the anatomy of the lymphoid system, complement system, immunodeficiencies and lymphomas, hypersensitivity reactions and cancer immunology are particularly outstanding and well documented. These and other chapters certainly present sufficient material for a textbook for veterinary students and practitioners, while veterinary immunologists will find the references at the end of each chapter very useful.

However, not all of the chapters are of the same high standard, for example chapter 4 (immunoglobulins) and 10 (histocompatibility antigens and blood groups). In chapter 4 there is no reference to the number of constant regions of IgM and IgE (interaction with membrane receptor of mast cell may be located in C 4 and not in C 3), a J-chain is drawn in some illustrations but the word "J-chain" cannot be found in the text or in the legends, the 7S-11S IgA distribution as given by the authors is the typical human IgA distribution and is over simplified. Further, nothing is said about all the work done on the immunoglobulins of poultry and other birds (IgA in bile and in pigeon cropmilk, the Harderian gland not even being mentioned) or of rodents (IgE immunocytomas of the rat !). The equine IgB is not mentioned nor the typical raised titre of IgG(T) in parasitic infections. Chapter 10 is also disappointing and needs rewriting in the second edition and the references should also be updated. The most recent publication referred to is 1976. A great deal of - veterinary - work on the MHC of nearly all domestic animals has been published since, mainly because of the association between the MHC and Ir genes - not mentioned in the text - and not because of transplantation studies. For example, the reader will look in vain for the B blood group as the chicken MHC, which proved to be so important for the resistance to Marek's Disease.

Fortunately, the bibliography of nearly all other chapters is more recent and comprehensive. By way of these "suggested further readings" the reader can get a lot of information on less well known phenomena not always in the mind of veterinary students or of veterinary immunologists. On the other hand, the clinical immunologist especially will sometimes wonder why some important information is totally ignored as for example the hybridoma (myeloma hybrids) work, which will be one of the main topics in the coming international congress of the IUIS, the lung worm vaccine in the vaccination chapter, the anti-dsDNA (Farr assay or fluorescent antibody test with *Crithidia lucilliae*) test for the diagnosis of SLE, the omitting of a good description of the indirect hemagglutination test in the serology chapter and the scanty information about the serology of the rheumatoid diseases (Rose-Waaler) and the diagnostic significance of IgG, IgM and IgA rheumatoid factors, etc.

In general this book is a worthwhile addition to all veterinary laboratories, in spite of the fact that it does not contain all the information on veterinary clinical immunology that it should.

Nevertheless it provides much information which up to now has been scattered in the different journals. With the above mentioned deficiencies in mind it may still give additional information for teachers of veterinary immunology and it will be of value and is recommended to veterinary students as well as to veterinary practitioners.

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