BOOKS RECEIVED

Immunological aspects of infectious diseases

In the early days of immunology, microbiologists regarded immunologists as their natural
allies and indeed it would have been hard to make a firm distinction between the two disciplines.
Unhappily, this is less true of the two decades after the second world war and until recently much
academic immunology has had little direct relevance to clinicians or pathologists concerned with
the problems of human disease. Happily, the gap is now narrowing as immunologists return
with renewed enthusiasm to studying the host response to microbial infections. This period in
the wilderness was arguably salutory because immunologists have returned to problems of
infection armed with a detailed knowledge of the structure and to some extent the function of the
diverse components of the host immune response, which combine to limit the spread and
persistance of infections. Despite the spate of books dealing with other immunological topics
and their relation to disease, there have been surprisingly few dealing with the immunology of
infectious diseases. Thus, both the scientific and the literary scene were set for the appearance of
a book of this kind. The success of the venture is well illustrated by the fact that the majority
of the topics discussed in the book do not appear in any other textbook of medical immunology.
Nor are these topics contrived, because these deal directly with many immunological themes that
have not been explored in the context of infectious diseases of man. These novel chapters
should be mentioned first. Professor Pepys considers the whole range of allergic reactions to
microbial infections and thereby provides important insight into many problems that have been
long and fruitlessly debated. In particular, this chapter shows that detailed analysis of immune
responses in infectious diseases can resolve the extent to which hypersensitivity contributes to
tissue damage. This chapter also makes clear that the whole range of infectious agents do
possess allergic responses, and that additional speculation about the extent to which such allergy accounts for inflammatory disease in, for example, the respiratory
and gastro-intestinal tracts, needs to be revaluated by modern techniques. Dr Bullock's
discussion of anergy in infectious diseases also emphasises the important point that the extent of
microbial growth in infected tissues can overwhelm the immune responses of the host by
mechanisms analogous to high-dose tolerance. This concept is not only important to our
understanding of chronic infectious diseases such as tuberculosis and leprosy, but is also central
to any consideration of how combined chemotherapy and immunotherapy may be combined in
future protocols of treatment. This theme is reinforced and elaborated in Professor Turk's
analysis of immunology in a variety of chronic infections.

The other contributions to this volume are less novel but nonetheless combine to provide a
body of information that has not hitherto been readily accessible to the microbiologist. The
immunology of fungal infections, protozoal infections, and persistent virus infections are all
considered. An important consideration in analysing immunopathological consequences of
persistent infection is the realisation that the host's immune response may account for some and
occasionally all the tissue damage resulting from infection. This again has important implications
in terms of devising therapeutic regimes and indeed we already accept the idea that
antimicrobial chemotherapy and immunosuppression may be used synergistically in some
clinical situations, a concept that would have provoked horror a decade ago. In this context
there are chapters dealing with immune-complex disease, autoimmunity, and slow virus infec-
tions. Finally the extent to which deficiencies in the host response can aid and abet microbial
persistance is also not neglected. Immunodeficiency, whether resulting from natural causes or
as the consequence of social evils, is fully reviewed.

This volume therefore contains full and well balanced contributions covering the immune
response to the entire range of microbial infection of man, ways in which infectious agents can
evade these mechanisms, and the extent to which the immune response itself may prove harmful
to the infected host. The editor has orchestrated this performance with commendable firmness
and skill and, indeed if the musical metaphor is to be pursued, it is remarkable that so many well
known soloists have been persuaded to knuckle down under his authoritative baton. Clinicians
and clinical pathologists will find this volume readable and often invigorating. The price is
moderate and there are full lists of references for further reading.

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