Hepadna viruses


The UCLA series of Symposia on Molecular and Cellular Biology were established in 1972 and the volume on Hepadna Viruses (hepatitis DNA viruses) is the 70th publication, covering an important, topical and rapidly progressing field of study.

Replication and regulation of gene expression of the human hepatitis B virus and the functions of the gene products receive much, although haphazard, attention. One paper is devoted to the duck hepatitis B virus, but disappointingly this deals mostly with the effect of phosphonoformic acid (Foscarnet) on the ability of the virus to infect duck hepatocytes. The role of this virus on secondary amyloidosis in the Pekin duck was also examined, and this example serves to illustrate the problem with this format of published proceedings as disjointed contributions to the literature without a central theme. Current reviews on each topic would have been enormously helpful. Otherwise, such a large tome tends to be a collection of short papers which could have easily been gathered from recent journals (and indeed many of the findings had been published elsewhere).

Another section of the book is devoted to hepadna viruses and their role in hepatocellular carcinoma. The well-versed will find some of the papers interesting, but the novice will soon be lost in specialised titbits of molecular biology such as the integration of viral DNA into chromosomes, secondary rearrangements and translocation. The X gene, however, the smallest of the four open reading frames on the minus DNA strand of the mammalian hepadna viruses is covered well.

The section on the pathogenesis of liver disease is somewhat better, with a good review on the histology of infection with the hepadna viruses and the hepatitis $\delta$ virus (a defective RNA virus which is dependent for its replication on a helper function provided by the hepatitis DNA viruses, particularly the human hepatitis B virus). The paper on pre-S and anti-pre-S is also valuable. However, the editors soon lapse into the esoteric; for example, on interleukin-2 receptors expression and $\gamma$-interferon production in $\delta$ virus-related chronic liver disease, followed by a chapter on simultaneous detection of antibody to the human immunodeficiency virus (also an RNA virus and the causative agent of AIDS) and hepatitis B surface antigen.

A whole section is devoted to the $\delta$ virus (an RNA virus) and its molecular biology. However, the inclusion of a study comparing immunoassays of anti-$\delta$ antibody and delta hepatitis in haemoptilaeae is difficult to justify. This reviewer also fails to understand why chapters have been included on parenteral non-A, non-B hepatitis since the causative viruses have not been identified let alone designated as DNA viruses.

Finally, the section on vaccines is useful and the review on hepatitis B vaccines by Purcell and Gerin is excellent. The potential of live hepatitis B adenovirus recombinants as vaccines is an exciting development. The chapters on yet another trail (one of many dozens of studies) on the effect of recombinant $\alpha$-interferon on chronic hepatitis B, and surrogate testing for non-A, non-B hepatitis, are surely superfluous.

This volume is reminiscent of a well-rehearsed orchestra with a number of well-known players. Perhaps a prelude to the International Hepatitis Symposium which was held in London one month later?

A. J. ZUCKERMAN

The dermatology of bacterial infections


This book will both fascinate and irritate the microbiologist. Fascinate because of the insight it provides into the skin changes associated with all manner of bacterial infections and of the plethora of descriptive terms inseparable from the practice of dermatology. Irritate because the structure of the book leads to microbiological irregularities.

The "classical" infections are described first, alphabetically from anthrax to typhus, frequently with an admirable blend of history, therapy and clinical expertise. Hospital infections and immunological responses follow. The "intermediate" era runs from acne to verruga peruiana and is followed by "mixed infections" and some strictly non-cutaneous manifestations of infection, such as the causes of clubbing of the finger tips. The last section contains the "newer" infections; some truly new such as legionellosis where "Dermatologists—have little to offer" and some, such as scalded skin syndrome, described by Ritter von Rittershain in 1878 but receiving modern attention. There are flashes of dry humour; thus, in relation to fusobacterial infection "older clinicians advised tying off the jugular vein, while modern reports set store by metronidazole—" or in relation to Borrelia infection, "It is hoped that Lyme arthritis will not be mistaken for chalk gout". A few references follow each section and though some may be useful for further reading, the choice occasionally appears idiosyncratic.

It is the structure of the book that results in, for example, erysipelas due to Group A streptococci appearing on page 24 but cellulitis due to the same organism on page 256, or, equally, bullous impetigo appearing near the beginning of the book but scalded skin syndrome appearing near the end. The chief disappointment is inherent in the book's title however; for example, though AIDS receives a little attention (too little) none of the other manifestations of viral or fungal infection receives any attention. This leaves intertrigo or athlete's foot in normals and infection of the immunosuppressed in a rather unfinished state. Despite the short comings, this is an interesting book which I have enjoyed reading. I recommend it.

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