
This continues the interesting series of Contributions to Pathology edited by Berlyne and Giovannetti. It is of value not only by virtue of the quality of the contributions but also because it provides a valuable insight into current progress in renal research in Japan.

It is not perhaps unexpected that the first paper concerns environmental cadmium pollution for such pollution is now, as Saito and his co-workers say, a major social and political problem in Japan. The gravity of this problem is perhaps best illustrated by a reported incidence of 13-22% of proteinuria and glycosuria in the population of cadmium polluted areas. This is ascribed to a cadmium-induced proximal tubular dysfunction.

The remaining papers centre on more familiar renal problems, many of them experimental. Kawamura and Negano confirm the already recognised disease in the sialic acid content of the glomerular basement membrane in diabetes mellitus and show that this change is referable to a change in the sialoglycoprotein itself.

Among other papers a rather unusual one centres on the isolation and analysis of toxic substances from the urine of patients with uraemia, by the assessment of the effects of various urine fractions on tissue-cultured kidney and liver tissue. A particularly toxic fraction was characterised by methyl guanidine or one of its derivatives.

Wakashi and his colleagues amplify current work on the pathological significance of urinary glomerular basement membrane antigens; the paper's particular value lies in the great care that has been taken to separate such antigens from tubular basement membrane antigens.

The dexterity of Japanese workers is exemplified by a micropuncture study (Fujimoto et al.) on the proximal tubule of the bull-frog. This work confirmed that potassium was reabsorbed against an electrochemical gradient but showed the passive transport of chloride.

In a paper of wide interest to experimental pathologists, Shimizu and his co-workers review the occurrence of immunoglobulins and complement in the normal glomeruli of a wide range of mice. The presence of such deposits is by now fairly generally realised by those working on experimental nephritis in mice. The occurrence of complement and immunoglobulins in the glomeruli of normal animals suggests that one should be rather more reserved than is sometimes the case when ascribing a pathological significance to the presence of similar deposits in the human glomerulus.


The ever increasing developments in the field of blood transfusion, particularly in blood component therapy, have resulted in more and more clinicians requiring the services of a modern transfusion centre. There is therefore a need to inform clinicians of these recent developments, and Dr John Wallace is admirably placed to do this, not only because of his many years' experience in the Glasgow centre but also because of his own important contributions in this field.

Appropriately, blood component therapy is the first and major topic described. Other chapters cover blood group serology, particularly the Rh factor, complications of transfusion therapy, including an authoritative account of the problems of hepatitis, and the HLA system and its value in transplantation and certain disease processes. He concludes with chapters on the organisation of the service and its possible future.

My only reservation is the style of presentation. There is a fair amount of repetition, and the continuous narrative style with few diagrams and tables, etc., may not be to everyone's taste. If one is looking for a specific piece of information it may be difficult to locate it. However, this form of presentation may well have been a factor in keeping the price a reasonable one. This book does fulfil a need and is a welcome account of the continually developing blood transfusion services available to sick patients today.

L. A. D. TOVEY


This volume contains detailed information available on up-to-date technology for the separation, identification, and characterisation of proteins based on gel filtration, gel electrophoresis, and adsorption chromatography. It deals essentially with theoretical considerations and contains valuable data regarding the principles underlying the various separation procedures. Technical data, however, are not omitted. The advantages and limitations of available techniques are well presented and could be considered as one of the main virtues of this book. The interpretation of separation patterns is another valuable characteristic of this volume.

A very useful chapter is devoted to estimation of molecular weight by gel filtration and gel electrophoresis. It comprises both the mathematical principles and the statistical considerations. Another is devoted to the very interesting sieving chromatography, a combination of gel filtration with adsorption chromatography which is particularly effective, for enzyme purification.

This is most certainly not a 'cookery' book and would be of greatest value to research laboratories, possibly less so to the routine chemical pathologist.

J. KORN