medium containing blood. For this reason we preferred to test our strains after growth on blood agar base. Precise details of Severin’s chromogenic cephalosporin substrate method were not stated. To the best of our knowledge, antibiotic therapy had not been given to the four patients from whom β-lactamase producing strains were isolated. Clearly, the possibility of transfer of plasmids determining β-lactamase production between campylobacters and other intestinal bacteria deserves consideration.

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References

Reference standard for packed cell volume

In a recent issue (J Clin Pathol 1980;33:1) the International Committee for Standardization in Haematology presents a recommendation for a reference method for determining packed cell volume (PCV) of blood. I feel that there has been a significant omission in that the committee does not specify the proportion and type of anticoagulant to be used. Although trapped plasma may increase PCV, the effect of the anticoagulant may offset this by decreasing the volume of the individual red cell.

Brittin et al.1 studied the effect of excess disodium EDTA and demonstrated that excess EDTA shrinks red cells in proportion to the excessive concentration of anticoagulant. However, this error, due to excess anticoagulant, was not produced when the haematocrit was determined by the Coulter Counter Model S.* It has been our experience, in an unpublished study comparing 1500 duplicate pairs of haematocrit values done by the micro-haematocrit technique and by the Coulter Counter Model S, that the micro-haematocrit was one unit lower than the haematocrit as determined by the Coulter Counter Model S. We feel that this is probably due to excess EDTA, which overcompensates for the increased PCV created by excess plasma.

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Pseudoleptospires in blood culture

We noted with interest the observation by Rahman and Macis1 that pseudoleptospires could be identified when blood cultures from healthy humans were examined under dark-ground microscopy. We have observed the presence of artefacts similar in all respects to those described by these authors when whole blood samples from normal, healthy guinea-pigs, hamsters, mice, and chickens have been submitted to direct dark-ground examination. Furthermore, the same type of spiral filaments have invariably been observed when fluid from freshly prepared or incubated suspensions of liver and kidney tissue from these same animals have been similarly examined. It would thus seem likely that such artefacts would be found in corresponding preparations from other animal species as well as man. Although these pseudoleptospires can usually be fairly easily differentiated from the true leptospire by an experienced worker, we concur wholeheartedly with the view that a diagnosis of

Over the period 25 January to 14 February 1980 in one rehabilitation ward of the geriatric service, 10 out of 14 women and 2 out of 4 men developed diarrhoea, accompanied in some cases by vomiting. The majority of patients on this ward occupy single rooms but there is a common day area. Three female members of staff also developed diarrhoea.

The average age (±SD) of the 12 symptomatic patients was 85:1 (± 6-7) years. Stool specimens from 11 of them were examined and salmonella, shigella, campylobacter, and enteropathogenic Escherichia coli were not isolated. Rotavirus particles were, however, seen on electron microscopy in 5 of the 11 (45-5%) cases; corona virus was seen in one. No virus-like particles were seen in stool samples obtained from the six asymptomatic patients.

These finders support the suggestion of Cubitt and Holzel that rotavirus should be considered as a possible cause of outbreaks of diarrhoea in elderly patients in longer stay wards.

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Rotavirus infection

We were very interested to read the paper by Cubitt and Holzel (J Clin Pathol 1980;33:306) about an outbreak of rotavirus infection in a long-stay ward of a geriatric hospital. We have recently seen a similar outbreak.

Reference

* Coulter Electronics, Inc, Hialeah, Florida, USA
leptospirosis based on direct dark-ground examination alone is not to be recommended. This applies not only to the routine diagnostic laboratory with limited experience of leptospirosis but also to those institutes engaged in research or vaccine development and control work in which the use of experimental animals is required.

Reference


Book reviews


This expensive, high-quality atlas will add prestige to any departmental bookcase but for the same reason it may be found less often by the trainee's elbow on the microscope bench. Many of the beautiful watercolour reproductions of the earlier editions have been retained and these, because of their size, tend to dominate the atlas. Conversely, the magnification of the Pappenheim-stained photomicrographs is sometimes too low to enable the cells to be identified clearly. Although a few painted illustrations are of value to the inexperienced, when they are widely used there is a danger that the trainee requires to learn two types of morphology—the photomicrograph and also the artist's impression of it. For those who like this approach, however, the atlas is of unique value.

There are sections on tumour cell morphology, parasitology, and transmission (but not scanning) electron microscopy, and cytochemical reactions are included in most of the sections. Although marrow trephine biopsies have become a regular feature of modern haematological practice, the atlas is restricted to marrow aspirates with a one-sentence reference to the widely used Jamshidi biopsy technique. There are, however, useful illustrations of spleen and lymph node aspirates and touch preparations. The English translation of the text is of limited appeal since it retains some old terminology with German nomenclature ('partly englshed' to quote a table).


The authors' aim has been to coordinate present physiological knowledge with clinical experience.

After chapters concerned with bone, and calcium and phosphate homeostasis, a further six chapters cover hypophaemic states, hypercalcaemic states, rickets and osteomalacia, osteopenic and osteosclerotic disorders of bone, urinary tract stones, and ectopic calcification. Each chapter ends with quite extensive but carefully selected lists of references grouped under several headings for ease of referral.

The Harrisons have based this volume on their own many years of experience in the wards and the laboratory. Their personal approach to the problems of the sick child is shown on every page, and many tables and graphs refer to individual patients whom they have seen. Well-chosen and beautifully reproduced photographs are included and these enhance the value of the book. An unusual feature is the inclusion of some long case histories at the end of most of the chapters. These will be of particular interest to those without a medical background.

Although the major use of this book will be by paediatricians, it is a volume which those who are providing a clinical biochemistry service for children will wish to have available for reference. Clinical problems concerned with calcium and phosphate metabolism are frequently complex, and the role of the laboratory is important. The authors have produced a volume of interest to clinical and laboratory workers alike. It is highly recommended.


It is interesting to compare this issue of the British Medical Bulletin with earlier issues published in 1947, 1958, and 1964 on the same subject. The discovery of ways in which chemicals of widely differing structure can be converted in the body to electrophilic metabolites which react with genetically significant macromolecules in cells has been the most important single development. Next to this has been the development of highly sensitive methods for detecting interactions between chemicals or their metabolites with DNA using microorganisms. Several of the contributions
Pseudoleptospires in blood culture.

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