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Book

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JOURNAL OF CLINICAL PATHOLOGY

The Journal of the Association of Clinical Pathologists

VOLUME THIRTY-THREE
1980

BRITISH MEDICAL ASSOCIATION
TAVISTOCK SQUARE LONDON WC1H 9JR

should be checked with a suitable micrometer and the exact internal radius also determined*. The lower end of the tube must be sealed with a flat bottom, and the plane of the internal surface should be at right-angles to the axis of the tube and aligned with the origin of the graduations.

Radioiodine-labelled human serum albumin solution, having a concentration of about 20 g/l and ideally >0·4 mCi/ml, should be used. The material should preferably conform to the specification of the International Pharmacopoeia (Supplement 1971), *Specifications for the Quality Control of Pharmaceutical Preparations*, though certain other National Pharmacopoeial recommendations may be adequate.

Less than 2% of the label should be present as free iodide at the time of use. The ability of the preparation to bind to red cells should be assessed; if the material is to be satisfactory then the red cell binding after four washes with isotonic saline should be less than 1% of the albumin that is in the trapped plasma when the method recommended below is used.

4 Method

A 5 ml blood sample (or red cell preparation) is labelled by adding 10 μl of the albumin solution and is then used for the PCV determination.

The Wintrobe tube is filled from the bottom upwards with well-mixed blood, and the level of the meniscus is noted to the nearest one-third of a millimetre. It may be convenient to use a Pasteur pipette to fill the tube, which must then be sealed with paraffin wax paper to minimise evaporation.

The tube is centrifuged at room temperature so that the relative centrifugal force is 12 000-25 000 m/s^2 (*c* 1200-2500 *g*) 50 mm from the base of the tube.† During the centrifugation period the temperature of the blood should not exceed 35°C. After 30 minutes the centrifuge is allowed to come to rest without braking, and the position of the upper end of the red cell column is noted to the nearest one-third of a millimetre. The uncorrected PCV, expressed as a proportion, may then be calculated by dividing this value by the reading obtained for the blood meniscus before centrifugation.

To determine the plasma trapping correction, plasma is aspirated from the tube, and aliquots are retained for counting. The traces of plasma above the red cells and upon the wall of the tube are removed by gentle washing with isotonic saline and discarded. Next the red cells are aspirated, the tubes washed with saline, and the washings added to the cells and counted.

5 Calculation

After the counts have been corrected for radioactive background, the plasma trapping proportion is calculated as follows:

(counts in red cells $\times$ 10^3)/(counts/ml plasma $\times$ $\pi r^2 h$)

where r is the radius of the Wintrobe tube and h is the height of the red cell column in millimetres. The PCV corrected for plasma trapping is then:

uncorrected PCV $\times$ (1 − plasma trapping).

*If tubes of the required bore uniformity are available but a micrometer is not, then the internal radius may be determined gravimetrically. The tube is filled to around the 0·1 mark with mercury and weighed, and the exact length of the mercury column is noted. Mercury is then added to around the 1·0 mark, the tube is re-weighed, and the new length is noted. If the difference in weight is w g and the difference between the lengths of the mercury columns is l mm, then the internal radius r (in millimetres) is $(23{\cdot}41\ w/l)^{1/2}$.

†Acceleration in m/s^2 is given by $1{\cdot}1 \times 10^{-5} \times R \times N^2$ where R is the centrifugal radius 50 mm from the base of the tube expressed in millimetres and N is the number of revolutions/minute. The standard acceleration due to gravity is 9·807 m/s^2. This centrifugal force packs the red cells sufficiently and allows subsequent washing procedures to be completed without disturbing the top of the red cell column.

It had been hoped that, as from January 1980, references in all papers would be given in the numbered 'Vancouver' style. However, in the interests of contributors who had submitted manuscripts before the general directive was published, there will be some papers with the Harvard style of references in the first two or three issues of 1980.

This should not be construed as an encouragement to authors to continue to submit papers in the old style.

(1970). Communicable Disease Center Standard Rubella Haemagglutination Inhibition Test.

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The December 1979 Issue

THE DECEMBER 1979 ISSUE CONTAINS THE FOLLOWING PAPERS

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Morgan, H., Wood, M. W., and Murphey, F. (1973). Experience with 88 consecutive cases of brain abscess. *Journal of Neurosurgery*, **38**, 698-704.

Niven, C. F., Jr., Smiley, K. L., and Sherman, J. M. (1942). The hydrolysis of arginine by streptococci. *Journal of Bacteriology*, **43**, 651-660.

Parker, M. T., and Ball, L. C. (1976). Streptococci and aerococci associated with systemic infection in man. *Journal of Medical Microbiology*, **9**, 275-302.

Poole, P. M., and Wilson, G. (1976). Infection with minute-colony-forming β-haemolytic streptococci. *Journal of Clinical Pathology*, **29**, 740-745.

Samson, D. S., and Clark, K. (1973). A current review of brain abscess. *American Journal of Medicine*, **54**, 201-210.

Shaw, M. D. M., and Russell, J. A. (1975). Cerebellar abscess: a review of 47 cases. *Journal of Neurology, Neurosurgery and Psychiatry*, **38**, 429-435.

Stevens, P., and Young, L. S. (1977). Simple method for elimination of aminoglycosides from serum to permit bioassay of other antimicrobial agents. *Antimicrobial Agents and Chemotherapy*, **12**, 286-287.

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some resultant difficulty in categorisation. There are a number of useful tables and summaries and a good deal of sound sense and distilled experience of real value.

Should sufficient clinicians at some stage of their training feel that it meets their needs, this book will make a worthwhile addition to the publications available.

G. L. GIBSON

Bacteria and Human Disease. By J. M. Slack and I. S. Snyder. (Pp. xii + 484; illustrated; £15·50.) London: YB Medical Publishers Ltd. 1978.

This book begins with a simple and laudable statement of its objectives, and this to impart a working knowledge of bacterial diseases and their causation. Each chapter is prefaced by a succinct overview and ends with a few clinical problems and questions which the student should be able to answer if the preceding pages have been diligently studied. Inbetween the information is fairly up to date and tightly packed. References are not annotated in the text but a short reference list is given at the end of each chapter. The authors include short passages on immunity, pathogenicity, and treatment with each genus, but there is little general discussion of these topics and this may dissatisfy the reader. The chapter on antibiotics was not worth including.

It is difficult to place this book in terms of student requirements. Too detailed for medical students it does not have the right mix for Primary MRCP candidates, and more senior students may find that other textbooks are more suitable to their needs.

D. M. JONES

Mucosal Biopsy of the Gastrointestinal Tract. 2nd Edition. By R. Whitehead. (Pp. xiv + 241; illustrated; £14.) Philadelphia, Toronto, London: W. B. Saunders. 1979.

My best books are on a shelf within arm's reach of the telephone. Here this select collection act as academic liferafts, positioned for easy reference during calls from argumentative clinicians. The first edition of Professor Whitehead's book is on this shelf and will now be replaced by the second edition.

The new edition runs to 241 pages, 39 pages more than the first. This is not quite the increase of 'over one half the original', as claimed in the preface. There are more than 40 new photomicrographs, but sadly the printing is on thinner and, I imagine, cheaper paper. This has reduced the contrast of the illustrations, which are now less distinct than in the original version. No new chapters have been added, and the format is identical with its predecessor. Indeed, no major change was necessary. Most of the additional text takes the form of individual paragraphs with up-to-date references, and each improves the relevant section of the book. There are three parts, as before, covering gastric biopsy, small-intestinal biopsy, and colonic biopsy. In the first part, on gastric biopsy, there is an improved 'overview' of gastritis and its significance plus sections added on gastric polyps and gastric lymphomas. In the second section, dealing with small-intestinal biopsy, a classification of duodenitis has been added. In this part of the book I was disappointed not to find more on jejuneal morphometry, especially the role of lymphocyte counting, and also more on the controversial variants of the small-bowel lymphoma. The latter is perhaps an unjustified complaint for neoplastic disease is beyond the stated scope of the book, though it is a subject closely linked to gluten-sensitive enteropathy. In the third part, on colonic biopsy, the section on precancer in ulcerative colitis is greatly improved, and an interesting discussion on the 'normal biopsy' in Crohn's disease has been added. Perhaps infectious diarrhoea could have had better coverage, and a separate section on the interpretation of colonoscopic biopsy must surely be warranted in the 3rd edition.

Whether the difference between the two editions achieves statistical significance is debatable but all these are minor matters. This is another enjoyable, highly informative, and benign cruise down the gastrointestinal tract.

A. B. PRICE

Notices

International Cancer Research Technology Transfer Programme

The International Union Against Cancer will award 'International Cancer Research Technology Transfer' grants for research on cancer. The available funds are designed to permit investigators of any nationality to visit a research centre or centres abroad for a period not exceeding 28 days. The funds cover travel and living expenses. Additional information and application forms may be obtained from: International Union against Cancer, Conseil-Général 3, 1205 Geneva, Switzerland.

International Cancer Research Workshop Programme

The International Union Against Cancer will award financial support to enable the organization of International Cancer Research Workshops. The workshop should preferably bring together no more than 12 investigators active in the same field of basic, clinical or behavioural research relevant to cancer. The duration of the workshop should not exceed four days. Funds are intended to cover no less than 30% of the total cost of an approved workshop, up to a maximum of US $10,000 for each workshop. Applicants must provide a statement that funds from other sources will be available to cover the remaining costs. Closing dates for the receipt of applications are: 1 January—1 March—1 June—1 September. Additional information and application forms may be obtained from: International Union against Cancer, Conseil-Général 3, 1205 Geneva, Switzerland.

3rd International Symposium on Gastrointestinal Hormones
Cambridge-England, 15-18 September 1980

This symposium will cover the conventional circulating hormones as well as the locally acting paracrine peptides and the peptidergic innervation. The programme will consist mostly of submitted papers with review talks by invited authorities. Deadline for receipt of abstracts is 31 March 1980. For further details please write to: Dr S R Bloom or Dr J M Polak, Royal Postgraduate Medical School, Du Cane Road, London W12 0HS UK.

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39 Investigation of haemolytic anaemia 1961 (Revised 1968) JG SELWYN

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