

JOURNAL OF CLINICAL PATHOLOGY

*The Journal of The Association
of Clinical Pathologists*

VOLUME TWENTY-THREE
1970

EDITOR

A. GORDON SIGNY

ASSISTANT EDITOR

H. E. M. KAY

Editorial Board

ROSEMARY BIGGS

T. CRAWFORD

W. M. DAVIDSON

R. A. B. DRURY

J. A. DUDGEON

A. C. LENDRUM

G. K. MCGOWAN

N. H. MARTIN

J. L. STAFFORD

E. JOAN STOKES

JOAN TAYLOR

BARBARA H. BILLING

(representing the Association
of Clinical Biochemists)

EDITOR *British Medical Journal*

BRITISH MEDICAL ASSOCIATION
TAVISTOCK SQUARE · LONDON WC1H 9JR

preliminary dilution of the sample for the analyzer system makes it compatible with a similar system designed for the assay of vitamin B₁₂.

We wish to thank Dr D. Curnow, head of the Department of Biochemistry, for allowing us to use his Auto-Analyzer; Dr M. Cohen, also of the Department of Biochemistry, for the statistical analysis, and Dr H. J. Woodliff, head of the Department of Haematology, for his continued advice and encouragement, Joyce Loeb and Co. very kindly made available their Mecolab automated equipment and Miss Graham Carter also gave invaluable assistance in setting up the AutoAnalyzer.

References

- Baker, H., Herbert, V., Frank, O., Pasher, I., Hutner, S. H., Wasserman, L. R., and Sobotka, H. (1959). *Clin. Chem.*, **5**, 275.
 Cooperman, J. M. (1967). *Amer. J. clin. Nutr.*, **20**, 1015.
 Davis, R. E., and Kelly, A. (1962). *Aust. J. exp. Biol. med-Sci.*, **40**, 437.
 Frost, D. V., Lapidus, M., Plaut, K. A., Scherfling, E., and Fricke, H. H. (1952). *Science*, **116**, 119.
 Harper, T. A. (1965). *Nature (Lond.)*, **207**, 947.
 Herbert, V. (1961). *J. clin. Invest.*, **40**, 81.
 Herbert, V. (1966). *J. clin. Path.*, **19**, 12.
 Hoffbrand, A. V., Newcombe, B. F. A., and Mollin, D. L. (1966). *J. clin. Path.*, **19**, 17.
 Waters, A. H., and Mollin, D. L. (1961). *J. clin. Path.*, **14**, 33.
 Waters, A. H., and Mollin, D. L. (1963). *Brit. J. Haemat.*, **9**, 319.

The November 1969 Issue

THE NOVEMBER 1969 ISSUE CONTAINS THE FOLLOWING PAPERS

The *Journal of Clinical Pathology*—nine times a year!

Research and development N. H. MARTIN

Gram-negative bacilli in burns BRENDA DAVIS, H. A. LILLY, and E. J. L. LOWBURY

Gram-negative septicaemia during haemorrhage from an anastomotic ulcer J. D. WARD

Sensitivity of Gram-negative bacilli to ampicillin after six years' clinical usage B. SLOCOMBE and R. SUTHERLAND

Incidence of toxoplasmosis in women at a London hospital C. F. RUOSS and G. L. BOURNE

A simple quantitative and qualitative microbiological screening test for bacteriuria E. M. MACKAY-SCOLLAY

Isolation of a Coxsackie virus group B, type 5, from the heart of a fatal case of myocarditis in an adult MAURICE LONGSON, F. M. COLE, and DEREK DAVIES

Reaction pattern to three stresses—electroplexy, surgery, and myocardial infarction—of fibrinolysis and plasma fibrinogen R. CHAKRABARTI, E. D. HOCKING, and G. R. FEARNLEY

Disseminated fibrin thromboembolism among neonates dying more than 48 hours after birth J. F. BOYD

Effect of drugs on vitamin B₁₂ levels obtained using the *Lactobacillus leichmanii* method D. E. B. POWELL, J. H. THOMAS, A. R. MANDAL, and C. T. DIGNAM

Effect of sulphhydryl inhibition on the uptake of transferrin-bound iron by reticulocytes J. FIELDING, SHIRLEY A. EDWARDS, and RICHARD RYALL

Plasma iron values in National Blood Transfusion Service donors E. A. FRENCH and PUSHPA K. SITLANI

Uncertainties in the determination of the 'cortisol-binding capacity' of plasma and their removal C. W. BURKE

Catecholamine metabolite excretion in spina bifida B. MCKIBBIN, L. O'GORMAN, and T. DUCKWORTH

Adsorption of ⁵⁹Fe on glassware and its effect on data deduced MARY D. SMITH and T. KERNAGHAN

Bone changes in polycythaemia vera and myelofibrosis B. E. ROBERTS, C. G. WOODS, D. W. MILES, and C. R. PATERSON

Culture of needle biopsies of the liver from patients with suspected hepatitis PATRICIA E. TAYLOR, A. J. ZUCKERMAN, and J. L. FARROW

Hepatic fluorescence in porphyria cutanea tarda studied in fine needle aspiration biopsy smears OVE LUNDVALL and LENNART ENERBÄCK

Use of activated charcoal in the radioimmunoassay of human growth hormone in plasma H. S. JACOBS

Bronchial carcinoma and hypercalcaemia J. G. AZZOPARDI and R. S. WHITTAKER

Congenital mesonephric defects in male infants with mucopolysaccharidosis J. R. OLSON and D. K. WEAVER

Use of soluble swabs in the diagnosis of bladder neoplasia P. A. TROTT, GRANT WILLIAMS, and P. W. ATTRIDGE

Technical methods

Storage of virus-infected tissue culture substrates for the detection of serum antibodies by immunofluorescence G. SANDER

Letters to the Editor

Book reviews

Notice

The Association of Clinical Pathologists: 83rd General Meeting

Index to Volume XXII

Contents

Copies are still available and may be obtained from the PUBLISHING MANAGER, BRITISH MEDICAL ASSOCIATION, TAVISTOCK SQUARE, W.C.1 price 21s.

cases, the species isolated from both the clean-catch and aspirate specimens were alike although the count in the latter was slightly lower (approximately 10^1). The remaining 23 proved to be negative. This finding supports the belief that in young children growths of mixed organisms in varying numbers are mainly due to contamination and that in general there is a tendency to false positives from urine specimens collected by standard methods.

Conclusion

From the studies A and B it is clear that a considerable proportion of children can be confidently diagnosed by the methods at present practised. There will inevitably be some children, particularly those under 2 years of age, who give puzzling results, on whom it seems justifiable to carry out a further diagnostic procedure. Suprapubic aspiration has proved valuable in these doubtful cases, as shown in study C.

I wish to thank Drs D. M. Douglas, W. M. McCrae, and J. W. Farquhar, consultant paediatricians, whose patients were investigated as described.

References

- Braude, H., Forfar, J. O., Gould, J. C., and McLeod, J. W. (1967). Cell and bacterial counts in the urine of normal infants and children. *Brit. med. J.*, 4, 697-701.
- Pryles, C. V., Atkin, M. D., Morse, T. S., and Welch, K. J. (1959). Comparative bacteriological study of urine obtained from children by percutaneous suprapubic aspiration of the bladder and by catheter. *Pediatrics*, 24, 983-991.
- Turner, G. C. (1961). Bacilluria in pregnancy. *Lancet*, 2, 1062-1064.
- Urquhart, G. E. D., and Gould, J. C. (1965). Simplified technique for counting the number of bacteria in urine and other fluids. *J. clin. Path.*, 18, 480-481.

Reports and Bulletins prepared by the Association of Clinical Biochemists

The following reports and bulletins are published by the Association of Clinical Biochemists. They may be obtained from The Administrative Office, Association of Clinical Biochemists, 7 Warwick Court, Holborn, London, W.C.1. The prices include postage, but airmail will be charged extra. Overseas readers should remit by British Postal or Money Order. If this is not possible, the equivalent of 10s. is the minimum amount that can be accepted.

SCIENTIFIC REPORTS

3 Automatic Dispensing Pipettes. An assessment of 35 commercial instruments 1967 P. M. G. BROUGHTON, A. H. GOWENLOCK, G. M. WIDDOWSON, and K. A. AHLQUIST 10s

TECHNICAL BULLETINS

9 Determination of Urea by Auto-Analyzer November 1966 RUTH M. HASLAM 2s 6d

10 Filter Fluorimeters. A comparative list of 14 instruments March 1967 HANNELORE BRAUNSBURG (Re-issued in response to demand. Text still valuable, list now out of date) 5s

11 Determination of Serum Albumin by AutoAnalyzer using Bromocresol Green October 1967 B. E. NORTHAM and G. M. WIDDOWSON 2s 6d

12 Control Solutions for Clinical Biochemistry February 1968 P. M. G. BROUGHTON 2s 6d

13 An assessment of the Technicon Type II Sampler Unit March 1968 B. C. GRAY and G. K. MCGOWAN 1s 6d

14 Atomic Absorption Spectroscopy. An outline of its Principles and a Guide to the Selection of Instruments May 1968 J. B. DAWSON and P. M. G. BROUGHTON 4s

15 A Guide to Automatic Pipettes (2nd edition) June 1968 P. M. G. BROUGHTON 5s

16 A Guide to Automation in Clinical Chemistry May 1969 P. M. G. BROUGHTON 12s 6d (\$1.50)

17 Flame Photometers (2nd edition) 1969 P. WILDING 12s 6d (\$1.50)

spelling, or even suppress the name of a disease you haven't seen for a while. Reach then for Thomson and Cotton.

A. C. LENDRUM

THE OCCURRENCE AND SIGNIFICANCE OF MYOCARDIAL BRIDGES AND LOOPS ON CORONARY ARTERIES. By P. Poláček and A. Zechmeister. (Pp. 101; illustrated. Kčs 13.50.) University J. E. Purkyně, Brno—Medical Faculty. 1968.

This volume is a short monograph reporting an intensive and detailed study of the occurrence of myocardial bridges over the coronary arteries. These are normal anatomical structures which have been seen by all who dissect the coronary arteries carefully. The name, which is frequently in this monograph extended to 'muscular overbridgings', applies to areas in which the main coronary vessels run through superficial tunnels in which a leaf of myocardium passes between the artery and the epicardium in a part of its course which is usually extra-myocardial. These bridges have been observed in 85.7% of the hearts dissected. Their distribution has been analysed in relation to sex and various other variables and a study has been added of the occurrence of the bridges in a wide variety of animals. No direct relationship has been established with myocardial infarction but it is suggested that there is some increased predilection to atherosclerotic processes close to the bridges.

The authors are to be congratulated on such a detailed study which has finally disposed of the idea that these anatomical variations have pathological significance.

T. CRAWFORD

MIND AS A TISSUE Edited by Charles Rupp. (Pp. x + 357; illustrated. 40s.) New York: Hoeber Medical Division. 1968.

This book is the proceedings and edited (*sic*) discussions of a conference held in Philadelphia towards the end of 1966 at which an attempt was made to bring together certain aspects of those sciences which collectively provide the basis of modern 'organic' psychiatry. It may have been successful as a conference, but not as a book. Most people engaged in the practice of psychiatry and its supporting disciplines will find something in this book to interest them. But as each chapter is in effect an original paper or partial review standing alone—in many cases with only the most tenuous connexion with its companions—there will be few who will wish to read more than a few selected

items. Chapters likely to be of particular interest to clinical biochemists and pathologists are those on 'Biochemical factors in psychotic depressions' by Bunney and 'Endocrine order and disorder basic to mind' by Cleghorn, though the latter is more philosophical than physiological.

My review copy was badly produced, two of the chapters being quite unreadable as no less than 16 non-consecutive pages of text were entirely devoid of print.

VINCENT MARKS

THE CYTOLOGY OF EFFUSIONS AND CEREBROSPINAL FLUID. By A. I. Spriggs and M. M. Boddington. (Pp. 174; illustrated. 126s.) London: William Heinemann Medical Books Ltd. 1968.

The second edition of this monograph has resulted from 10 further years of experience in the field of cytodagnosis by Dr Spriggs and his co-author, Mr Boddington.

It is significant that in spite of the increased impetus of cytochemistry the authors sadly conclude that special stains are unlikely to solve the problem of malignant cell diagnosis. Rather have they relied on that 'skill born of experience' in traditional stain preparations and leant towards cytogenetics and cell metabolism studies for confirmatory tests. A useful account of simple chromosome analysis and karyotyping is a welcome addition to this volume.

As before, the authors prefer the use of the Romanowsky group of stains but do accept that the Papanicolaou stain provides certain advantages and they present both forms in their illustrations.

The text has very largely been rewritten and has led to clearer and more detailed descriptions of both cell types and disease patterns.

The photography is much improved and more than trebled in amount with 115 half-tone and 81 colour plates, the latter of good clarity and tinctorial quality. One is sorry, however, to see all the artistic efforts in cell painting by Mrs Spriggs which graced the first edition have been left out.

A much wider range of cell appearance is presented and includes electromicrograph and special stains, the results of considerable new material from the Oxford laboratory and some well chosen examples from other authorities.

The account of reticulosis has been elaborated with good illustrative examples, and the problems of diagnosis of mesothelioma simply and clearly presented.

A whole new chapter on cerebrospinal fluid has been added which provides an authoritative account of a field inadequately handled by the average cytological laboratory. Joint fluids, on the other hand,

are not specifically dealt with, nor examples given of radiation and cytotoxic drug effects, for which guidance would have been welcomed.

These are small points and it is difficult to find fault with this excellent treatise, dealt with in a manner at once casual and yet precise, so characteristic of its senior author.

Their analysis of results with detection rates, quoted from 28 to 83% with an average of 62%, demonstrates a frankness which inspires confidence.

Like the first edition, it will become an essential item on every cytologist's library shelf.

O. A. N. HUSAIN

Notices

ASSOCIATION OF CLINICAL PATHOLOGISTS (IN ASSOCIATION WITH THE COMMITTEE FOR POSTGRADUATE EDUCATION, UNIVERSITY OF OXFORD)

The third annual haematology course will be held at the Radcliffe Infirmary, Oxford, from 13 to 17 April 1970. This course is designed for trainees preparing for the final examination in haematology of the Royal College of Pathologists.

College accommodation will be available from Sunday, 12 April, to Friday, 17 April, at a cost of £2 per day and 10% service charge. The registration fee is £15.

Requests for further details and applications should be sent to:—Dr. A. A. Sharp, Department of Haematology, The Radcliffe Infirmary, Oxford.

BRITISH POSTGRADUATE MEDICAL FEDERATION (UNIVERSITY OF LONDON)

A series of evening lectures in pathology, suitable for candidates for the final MRCPATH examination, will be held from April to October 1970 (excluding August) on Mondays, Wednesdays, and Fridays from 5.30 to 8.0 p.m. at the Institute of Child Health (Mondays and Wednesdays) and the Institute of Neurology (Fridays). In the main, speakers will be on the staff of the specialist hospitals of the Federation and the programme will cover a wide range of pathological topics including histopathology, microbiology, chemical pathology, and blood transfusion, and topics of general pathological interest such as cytogenetics.

Fees, which those attending may reclaim from their employing authorities, will be charged at the rate of £1 for two sessions, with reductions for those attending one complete section of the series. Further details, programmes and enrolment forms may be obtained from the Central Office of the British Postgraduate Medical Federation, 14 Millman Mews, London, WC1.