These results show, however, that an erroneous diagnosis could be made in severely anaemic patients without dysproteinaemia. Correction of this problem can be achieved simply by washing the cells under test, but we consider it important that this possible source of error should be recognized.

We should like to thank Mr C. K. Campbell of Ortho Diagnostics for his help and generous supplies of Sickledex.

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Letters to the Editor

The Two Forms of Haemophilia A in a Population of Greek Haemophiliacs

Denson (1968) and Denson, Biggs, Haddon, Barret, and Cobb (1969) found that there are at least two populations of patients with haemophilia A. Those in the first group have neither factor VIII activity nor factor-VIII-like protein antigenically demonstrable. Those in the second group have little biological activity but in contrast have a factor-VIII-like protein capable of neutralizing a specific factor VIII inhibitor. The first group was termed haemophilia A⁻ and the second haemophilia A⁺. Of 48 haemophilic patients only four belonged to the second group. Similar were the findings of Hoyer and Breckenridge (1968), Feinstein, Chong, Kasper, and

Rapaport (1969) from the USA, and Meyer, Dray, and Larrieu (1970) from France.

Our findings in Greek haemophiliacs are

1 Forty haemophiliacs without inhibitor were investigated. The factor VIII activity was determined by the method of Pitney (1956). The distribution of factor VIII activity was <1% five patients, 2-5% 23 patients, and 5-10% 12 patients.

2 The activity of factor VIII inhibitor was quantitatively determined by the method of Biggs and Bidwell (1959). For the neutralization of the inhibitor by the test plasma the method proposed by Hoyer and Breckenridge (1968) was used.

Table I shows that the plasma of 37 haemophilic patients failed to neutralize the factor VIII inhibitor; thus these patients belong to haemophilia A⁻. The plasma of the other three patients

behaved like normal plasma in the ability to neutralize the inhibitor, thus these patients belong to haemophilia A⁺.

As Table II shows, our findings are similar to those of the authors previously mentioned. The number of haemophiliacs in each series is relatively small, but it would seem that the distribution of the two forms of haemophilia is similar in various countries. More material is, however, needed, mainly of various ethnic origins.

Recently (1970) Bennett and Heuhns examined a population of haemophiliacs of British origin according to the ability of their plasma to neutralize a rabbit antiserum against crude human factor VIII. The results were correlated with those of the biological assay of factor VIII activity of these samples. Three types of haemophilia were distinguished. In type 1 there was no biological activity and factor-VIII-like protein; in type 2 there was no biological activity but normal amounts of factor-VIII-like protein; and in type 3 there were low levels of factor VIII activity and normal amounts of factor-VIII-like protein.

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Sample	Total No. of Tests	Mean Residual Factor VIII Activity (units/100 ml)	Mean Factor VIII Activity (%) after Incubation
20 Normal plasma	20	21.5	25.0
37 Haemophilia A ⁻	74	1.2	8.3
Haemophilia A ⁺ 1	3	4.0	26.0
2	3	3.4	21.2
3	3	6.5	30.0
Buffer	6	1.2	8.4

Table I Neutralization of inhibitor by different test plasmas

Author (Country)	Number of Cases	Haemophilia A ⁻	Haemophilia A ⁺
Denson <i>et al</i> (UK)	48	44	4
Hoyer and Breckenridge (USA)	34	28	6
Feinstein <i>et al</i> (USA)	54	52	2
Meyer <i>et al</i> (France)	38	34	4
Present series (Greece)	40	37	3
Total	214	195 (91.2%)	19 (8.8%)

Table II Distribution of haemophilia A⁻ and haemophilia A⁺

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Lysing Agent for the Coulter S

I was interested in a recent letter (Nicol, D. J., and Davis, R. E., 1971, *J. clin. Path.*, 24, 882) which describes reagents for use with the Coulter counter model S. An alternative lysing agent which has been in routine use in this laboratory since February 1971 is a 2% solution of Ethyl hexadecyl dimethyl ammonium bromide (Tech)¹ in Isoton². The cost of preparation of a diluent similar in quality to Isoton appeared to be prohibitive but use of this substitute lysing agent has allowed an economy in this laboratory in excess of £1 000 per annum. The solution is particle free and has a shelf life in excess of one year. White blood cell counts and haemoglobin estimates comparing Lyse S³ and this lysing agent show no significant differences. The absorption spectra of haemoglobin solutions prepared with this reagent are very similar to those obtained at 546 nm with Lyse S (maximum differences were $\pm 2\%$ absorbance).

We prepare the reagent for use by adding 400 g of chemical to 20 litres of Isoton.

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¹Kodak Ltd, catalogue no. T. 5661

²Coulter Electronics, Dunstable, Beds

Book reviews

Transplantation Today Edited by Hans Balner, D. W. van Bekkum, and Felix T. Rapaport. (Pp. xxiv + 978. \$25.00.) New York and London: Grune and Stratton Inc. 1971.

The Third International Congress of the Transplantation Society was held in September 1970. The proceedings were published six months later as Volume 3, No. 1 of *Transplantation Proceedings*, and priced at \$20. The volume reviewed here is the same material put between hard covers, provided with a title, and somewhat more expensively priced.

It consists of some 240 papers, mainly of three to four pages each, covering most (but by no means all) of the vast field of clinical and experimental transplantation of interest today. The largest section (about 200 pages) deals with transplantation antigens in man and other species, including their genetics and chemistry. Other topics covered include clinical transplantation (selection of donor, special problems in transplantation of kidney, liver, lung, bone marrow, pancreas and heart, etc.), antilymphocyte serum, tolerance and enhancement, microsurgical techniques, tissue and organ preservation, and cross-species transplantation. Papers that do not fit readily into other sections are collected under 'Fundamental transplantation immunology'.

As these papers were for presentation at a scientific congress, they tend to be rather specialized, and they will be of most interest to clinical or experimental workers in the transplantation field.

It is unfortunate that several diagrams have been compressed within a half-page width. Some of these are literally unreadable without a magnifying glass.

M. C. BERENBAUM

Clinical Chemical Pathology 6th edn By C. H. Gray. (Pp. x + 244; illustrated. £2.00.) London: Edward Arnold (Publishers) Ltd. 1971.

This book forms the basis of instruction in chemical pathology to the clinical medical students at Kings College Hospital, London. There is one new chapter in this edition and three chapters have been re-written but the book has been maintained at the same length as the previous edition by effective pruning of material.

Any author who can accomplish reasonably full and lucidly written description of chemical pathology in less than 250 pages is to be congratulated. Professor Gray deserves our congratulations.

The reviewer found the chapter on acid-base confusing. A more general approach to biochemical genetics rather than listing of known conditions would have been more interesting. The rewritten chapters on renal function and hormones are excellent summaries.

The publishers are to be congratulated on the price of £2.

T. P. WHITEHEAD

Practical Section Cutting and Staining 5th edn By E. C. Clayden. (Pp. 270; illustrated. £3.00.) Edinburgh and London: Churchill Livingstone. 1971.

Successfully retaining the 'little book' image, Mr Clayden has produced a fifth edition, maintaining the example set by the previous four.

This humble book has probably aided and advised more than would care to admit, and given encouragement to many students contemplating a career in technical histology.

Cleverly brought up to date without pretending to be comprehensive, the volume includes little that is superfluous and is still the best 'starter' for students.

I. HUNTER

Ask the Lab—the Career of a Medical Laboratory Technician By Kenneth Hughes. (Pp. 125; illustrated. £1.50.) Reading: Educational Explorers. 1971.

Many medical laboratory technicians will recognize the need for a book of this kind—certainly they will recognize their own laboratories. But, in emphasizing the vocational and humanitarian aspects of this career, the author has sometimes obscured its essential scientific nature.

There is, perhaps, insufficient mention of those dynamic changes taking place now in hospital laboratories, both in technical development and in training of personnel, to highlight the challenge they might present to inquisitive young school leavers.

CELIA NELSON