Letters to the Editor

Lymphangiosarcoma

In *J. clin. Path.* (**24**, 524, 1971) you were kind enough to publish an article of mine entitled 'Lymphangiosarcoma arising in chronic congenital and idiopathic lymphoedema'. Through the courtesy of Miss Irene Cade I have recently received follow-up information on this patient.

He remained well for two years and four months. He then developed local skin recurrences, bilateral inguinal node involvement, and a mass in the pelvis. Later a metastasis developed in the neck and he died of his disease three years and two months after his hindquarter amputation.

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Estimation of Fibrinogen

We have read the paper by Drs Giddings and Bloom, in the July number of the Journal, with great interest. We were surprised, however, that they encountered no difficulty in using Ortho Fibrindex as their source of thrombin for the fibrinogen titre test. We have found this reagent unsatisfactory because of contamination by plasmin, as can be seen from the results of the following tests:

FIBRINOGEN TITRES
Using thrombin of different manufacture, on the same plasma:

Source of Thrombin	*Fibrinogen Titre*	
Ortho batch 127	1/32	Lysing rapidly to 1/16
batch 128	1/32	Lysing rapidly to 1/16
Maw	1/128	No lysis
Parke Davis (P.D.)	1/128	No lysis

COMPARISON OF VARYING STRENGTHS OF ORTHO THROMBIN
On samples of the same plasma:

Units of Ortho Thrombin/ml (Batch 8H 133)	*Fibrinogen Titre*	*Fibrinogen Titre with εACA*
5	1/128	1/128
10	1/112	1/128
25	1/32	1/128
50	1/24	1/128
75	1/24	1/128
100	1/16	1/128

It will be noted that as the amount of thrombin increases the apparent titre falls, an effect abolished by epsilon aminocaproic acid.

TESTS FOR PLASMINOGEN AND PLASMIN ON FIBRIN PLATES
Thrombin, 1·6 units in a volume of 0·03 ml, was applied to fibrin plates and incubated for 18 hours.

Source of Thrombin	*Digestion Zone (product of two diameters)*
Unheated Fibrin Plate	
Maw	Nil
Parke Davis	Nil
Ortho batch 127	120 mm ²
batch 128	140 mm ²
Heated Fibrin Plate	
Maw	Nil
Parke Davis	Nil
Ortho batch 127	80 mm ²
batch 128	140 mm ²

Plasmin contamination of thrombin is an old observation (see Astrup and Darling, 1943) and these experiments show that Ortho thrombin from three separate batches contains significant amounts of this protease. Unless εACA is used in the test, the contaminant plasmin will cause sufficient proteolysis to give a falsely low fibrinogen titre. If εACA is used the intensity of fibrinolysis originating in the patient's plasma cannot be assessed. For the fibrinogen titre test it would therefore seem more sensible to use samples of thrombin proved to be free of plasmin.

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Reference

Astrup, T., and Darling, S. (1943). Contributions to the chemistry of prothrombin. *Acta physiol. scand.* **5**, 97-102.

Book reviews

Laboratory Diagnosis of Liver Diseases Edited by F. W. Sunderman and F. W. Sunderman, Jr. (Pp. xiii + 542; illustrated. £12·60.) St Louis, Missouri: Warren H. Green Inc. London: Adam Hilger Ltd. 1971.

Most symposia are valuable to the participants, but the volumes resulting from them generally fail to cover current knowledge in the field in either a well balanced or an integrated manner. This volume, which is the record of a seminar of the Association of Clinical Scientists held in Washington (? in 1966: pre-HAA), is no exception. There are more than 50 chapters of very varying length and quality, many on clinical chemistry methodology, others on biochemistry, clinical aspects, and general diagnostic procedures such as isotope scanning. To the reviewer (a biochemist) the histological chapters appear outstanding. There seems to be little original material, and many space-occupying lesions irrelevant to the main theme. There may well be a place for a book on this subject, and ruthless (> 50%) editorial pruning of these contributions could have been a start. The book costs £12·60 (price not given on the cover) and cannot be recommended.

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Biochemical Values in Clinical Medicine, 4th ed. By R. D. Eastham. (Pp. iv + 196. £1·00.) Bristol: John Wright and Sons. 1971.

The fourth edition of this book contains much new material and has been extensively revised. SI units have been introduced.

There are some inexplicable omissions, such as tests of adrenal stimulation with synthetic polypeptides, whereas certain tests of adrenal inhibition are given. Two pages are devoted to the basal metabolic rate which must surely be rarely used today, but the discussion of the T_3 uptake test refers to methods which are not in common use.

Our clinical colleagues will no doubt be stimulated to ask for tests mentioned in this book. Laboratory workers can only