Technical method

is subjected to unnecessary manipulation, and the work load of the technician and the pathologist is significantly increased by the large number of blocks and sections produced.

Parallel slicing of the intact unbisected cone (fig 2) permits satisfactory visualization of the entire cone and considerably reduces the number of blocks (fig 3) and sections (fig 4). Whereas slicing of the two separate halves of the cone illustrated in fig 1 would yield 16 blocks, similar slicing of the unbisected cone (figs 2 and 3) has produced only nine blocks. Nevertheless, when the unbisected cone is sliced the resulting blocks and sections are difficult to orientate unless some technical device is used clearly to identify one of the lips. The technique described below achieves this aim satisfactorily.

A stout needle, such as a marrow puncture needle, is passed through the anterior lip of the cervix (fig 2) with the stylet in situ to prevent blockage of the needle’s lumen. The stylet is removed and a syringe containing india ink is attached to the nozzle of the needle. The needle is then slowly withdrawn while simultaneously india ink is gently injected, staining the needle track. Any ink leaking from the track can be immediately washed away under a running water tap. The stained track in the anterior lip is clearly identifiable in both the tissue blocks (fig 3) and in the sections cut from them (fig 4).

Reference


Letters to the Editor

Diagnosis of Heterozygous Beta Thalassaemia

From experience in this laboratory, I do not agree with the conclusions of Yawson and his coworkers (J. clin. Path., 1974, 27, 247) on the unreliability of visual assessment for the estimation of the level of haemoglobin A2.

In our experience, multiple microelectrophoresis on cellulose acetate (the ‘microzone’ technique), followed by visual assessment is accurate enough to distinguish between the ‘normal’ and the ‘high’ levels of haemoglobin A2, if the following technical details are carefully adhered to: (1) use only freshly prepared haemolysates; (2) apply to one strip haemolysates with the same haemoglobin concentration (for instance 100 ± 2 g/l); (3) apply the same volume of the several haemolysates with an efficient single or multiple microapplicator; for each strip, carrying up to eight specimens, apply at least one normal specimen, preferably obtained from a pool derived from three or four normal subjects; (4) stain the strip with ponceau red and assess visually until wet, after exhaustive washing.

We applied this technique to some 100 haemolysates from beta-thalassaemia trait carriers, and to a larger series of ‘normals’ and obtained results in good agreement with the quantitative technique (CAE followed by elution and spectrophotometry in the Soret band) with the exception of two or three cases, which were classified as doubtful and subsequently found elevated by the quantitative method. The visual technique failed in classifying as ‘low’ the level of haemoglobin A2 in a case of heterozygous alpha-thalassaemia: it was, however, useful in clearly detecting the occurrence of S and H haemoglobins, when present. Obviously, preliminary training is needed for correct assessment.

As a result of such experiences, the following procedure is presently adhered to in our laboratory, as well as in others (Barnes et al, J. amer. Med. Ass., 1972, 219, 701). Specimens are first assayed by
means of microzone electrophoresis, and visually assessed for the occurrence of pathological fractions, as well as for the A2 levels, which are classified as 'normal', 'high', or 'doubtful': 'high' and 'doubtful' specimens (a small percentage of all specimens) are subsequently assayed by means of the quantitative technique.

The statement of Yawson and his colleagues that haemoglobin A2 is accurately quantitated by means of the elution technique does not seem to be in line with the recently reported results of a survey (White and Lewis, J. clin. Path., 1973, 26, 864) in which 50% of the participants reported normal values for a 'high' specimen, although 95% of them were using the elution technique. These results may be taken to mean that the elution methods must be performed under carefully controlled conditions in order to obtain reliable results and it appears doubtful whether they are really suited for screening programmes while such a simple, and yet reliable procedure as multiple microelectrophoresis on cellulose acetate, followed by visual assessment, exists as an alternative.

CARLO FRANZINI
Laboratory of Clinical Investigations, Ospedale Del Ponte, 21100 Varese, Italy

A Simple and Economical Modification of the Skin Window Technique

The method of Rebuzz and Crowley (1955) has been widely used to study phagocytes in skin window preparations. The procedure involves the use of two haemocytometer coverslips per patient.

Recently we carried out tests according to the method described by Ghosh et al (1973) in normal subjects and in patients with diabetic symptoms, and found that coverslips either slipped away from the site of scraping or were broken. The handling of coverslip preparations for staining, microscopy, and subsequent photography was also inconvenient because of their small size. The coverslip had unnecessarily to be mounted on the ordinary microscopic slide for permanent preparation and filing, but this preparation is not easily focused under the immersion lens of a light microscope.

In view of these difficulties we experimented with an ordinary glass microslide in one arm and a haemocytometer coverslip in another arm, and to our delight equally reproducible cell aggregates were obtained on a glass slide as on a coverslip. Further staining and microscopy were made very easy. Slides could now be permanently mounted with ordinary coverslips for subsequent reference.

This modification offers many advantages over the haemocytometer coverslip method. (1) It is economical, the cost of a microscopic slide compared with a haemocytometer coverslip is about 1:10. (2) It is better tolerated by subjects and the chances of breaking in situ are less. (3) It is easier to handle while staining and microscopic screening. (4) Cell preparations are better and permanent mounts are easily maintained. (5) The slide preparation lends itself easily to microphotography.

H. SAXENA and K. D. AJWANI
Department of Pathology, G.S.V.M. Medical College, Kanpur, U.P., India

References


Book reviews


In recent years, hard on the heels of the development of new radioimmunoassay techniques for the measurement of peptide and steroid hormones, has come an explosion in our understanding of the neuroregulatory control of the pituitary hormones and the interactions with the secretions of the target glands. Inevitably proceeding alongside has been the investigation of the endocrine aspects of the development and therapy of breast cancer, since there has been a long-held feeling that the growth of breast cancer is hormonally dependent or responsive; a great deal of often contradictory data from animal and human studies have been published and have confused those who need to understand this complex subject. The time is ripe, therefore, for a review of the subject and this is what Dr Stoll's excellent symposium attempts to do. Indeed it succeeds far beyond the implications of its title for not only does it review the neuroendocrine factors related to normal and neoplastic breast growth, it also deals with the non-neurosecreted hormones. He has invited a group of interested experts to discuss the roles of the hypothalamic-pituitary regulatory hormones, the pituitary hormones themselves, the target gland secretions as well as the adrenergic mechanisms altering release of these hormones in breast function under physiological conditions and also in the development of breast cancer and to review the evidence of how these factors can be therapeutically influenced. This attempt is mostly successful and seems to cover the literature up to 1972. Inevitably there are some flaws; too often some authors fail to differentiate between effects found in subhuman species and in man, seeming to assume that their experimental results are uniformly applicable; a number of topics are repetitively covered by different authors although this sometimes offsets too enthusiastic presentation of one side of a controversial subject; a few sections are weak, particularly that dealing with pituitary assessment after ablation. None- theless this review of the endocrine and neuroendocrine control of the breast and cancer is to be recommended.

G. M. BESSER


This book combines the work of a paediatrician, physiologist, pathologist, angiologist, and a paediatric cardiologist. It covers old and new material, experimental and new human anatomical, on the changes in the placental, pulmonary, systemic and portal circulations in the infant during the later stages of intrauterine life and following birth. The book is beautifully illustrated and each section has a good list of references and could become a small classic in its way. It is highly recommended to paediatricians, to the general pathologist interested in vascular disease in adults as the accelerated development that takes place around the time of birth has relevance in adult pathology, and to the radiologist dealing with visualization of the vascular system in infants.

JOHN L. EMERY
Letter: Diagnosis of heterozygous beta thalassaemia.

C Franzini

doi: 10.1136/jcp.28.3.203

Updated information and services can be found at:
http://jcp.bmj.com/content/28/3/203.citation

**Email alerting service**

*These include:*

Receive free email alerts when new articles cite this article. Sign up in the box at the top right corner of the online article.

**Notes**

To request permissions go to:
http://group.bmj.com/group/rights-licensing/permissions

To order reprints go to:
http://journals.bmj.com/cgi/reprintform

To subscribe to BMJ go to:
http://group.bmj.com/subscribe/