requiring neither treatment of tissue culture cells nor centrifuging of specimens.

Briefly, specimens in 0.25 ml of transport medium are inoculated onto circular coverslips in flat-bottomed tubes, 30 to 60 minutes after each tube has been seeded at room temperature with 1 ml of suspension of McCoy cells, 200,000 per tube, in Eagles' MEM (Hanks based) containing 10% fetal calf serum, 0.5% glucose, 100 mcg of vancomycin and 50 mcg of streptomycin per ml. At the time of inoculation most cells have adhered to the coverslip and can be seen easily with an inverted microscope; tubes are rejected if this is not so. After 2-3 days incubation in 5% carbon dioxide at 37°C the new monolayered coverslips are examined by immunofluorescence technique for Chlamydial inclusions. Suspensions of cells prepared by orthodox methods for seeding tubes may be kept at 4°C for up to 24 hours before being used.

We have now examined 91 urethral specimens from males attending a sexually transmitted diseases clinic; 45 have yielded Chlamydia. This is an acceptable isolation rate. Isolates may be passed repeatedly in plastic flasks using this technique, and numerous inclusions can be produced making such a technique encouraging as a basis for high antigen-yielding systems.

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We are grateful for help from clinic and laboratory staff.

Reference

Orcine staining for the demonstration of sulphomucins

Shousha and Boxer suggest that orcine staining may be used as an alternative to high iron diamine (HID) for the demonstration of sulphomucins. Whilst the HID method is the most sensitive and specific means of detecting sulphomucins, it would be desirable to replace it with another method for the reasons given by Shousha and Boxer and also because dianmes are carcinogenic. However, the authors have preceded the orcine staining by an oxidative step. According to Sipponen, they have not only demonstrated sulphomucins but also sulphonic acid residues resulting from the oxidation of disulphide groups. This would explain the unexpected positive results in small intestine and intestinal metaplasia of the stomach. Only when orcin is not preceded by an oxidative step can one expect a pattern of staining comparable to the HID method. It would be interesting to know if orcin can be combined effectively with alcian blue for the separation of sulphated and non-sulphated acid mucins.

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References

Drs Shousha and Boxer reply as follows:
We agree with Dr Jass that according to Sipponen the method we used demonstrates both acidic sulphated mucin and acidic mucins "with presumed sulphonic residues" as evidenced by the reaction noticed in the small intestine, and that our results are thus comparable to HID staining with, rather than without, oxidation. We have tried using orcin without prior oxidation but the results were weaker and less defined. We also tried to combine orcine staining, with and without oxidation, with an alcian blue technique at pH 2-5, both before and after the orcine staining, with no success.

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References
2. Sipponen P. Histochemical reactions of gastrointestinal mucosubstances with high iron diamine after prior oxidation and methylation of tissue sections. Histochimistry 1979;64:297-305

Book reviews


The accumulated expertise of the Bristol Bone Tumour Registry group in the application to bone tumours of histochmemical methods has more recently been extended to cytological smears. In this book an excellent introductory chapter sets out the general principles of cytological diagnosis and emphasises the advantages of speedier and more accurate diagnosis when histology is complemented by cytology. The method of making smears and, in the appendix, the staining techniques are so clearly described that work while preparations can soon be obtained even by those of us inexperienced in this field, though skill in interpretation will clearly take longer to acquire.

The remainder of the book consists of chapters on the different types of primary bone tumours according to the predominant cell type as well as on metastatic carcinoma and a number of non-neoplastic lesions. In each chapter the most helpful and cytological features and the most helpful stains in differential diagnosis are described and well illustrated, mostly in colour. The careful matching of histological and cytological preparations increases their value.

The use of cytological techniques seems to this reviewer to be especially helpful in two spheres. Alkaline phosphatase staining of smears may resolve the notorious difficulty in differentiation in small biopsies between chondroblastic or fibroblastic osteosarcoma and true chondrosarcoma or fibrosarcoma. Similarly, cytology may aid the important assessment of cartilage tumours. This book must be of interest to all pathologists concerned with the diagnosis
Review of "Bone Tumours" by M E Catto

The distinction is not always observed in this book. It is intended as a guide to 'liver biopsy interpretation', but although profusely illustrated the diagnostic guidelines tend to be obscured by a rather discursive text. The photomicrographs are uneven in quality and some have suffered in reproduction and the authors have been poorly served by the publishers who have the eccentric habit of placing many legends on the page preceding or following the photographs they describe.

The terminology of liver disease is a source of much confusion. To counter this a preliminary chapter is devoted to semantics; this should be useful to beginners. To help the pathologist through the problems of diagnosis, sections specifically on differential diagnosis are included in some chapters. These are helpful, but as the authors would recognise—can only be a partial help, since most problems of differential diagnosis in liver disease require an appraisal of all the evidence: clinical, biochemical, radiological, etc. as well as histological.

The concept of a series of books on 'Biopsy Pathology' is attractive. This book will be of value in the reporting room but I would suggest its value would be enhanced by a more concise and focused presentation.

G SLAVIN

Review of "Kaposi's Sarcoma" by S Karger

Kaposi's sarcoma is a tumour with a remarkably high frequency in Africans and accounts for about 9% of malignant tumours in Equatorial Africa. This excellent report of the Second Kaposi's Sarcoma symposium held in Kampala in 1980 describes progress in the understanding of the epidemiology, pathology, and particularly the therapy of the disease. It is unlikely that this book will find its way into the personal library of British pathologists unless they have a particular interest in tropical pathology but they should certainly persuade the hospital librarian to buy it.

G SLAVIN

Review of "Chromosomal Variation in Man" by S Borgaonkar

Most standard textbooks on human chromosomal disorders describe defined syndromes rather than the vast, and for the clinician bewildering, array of reported chromosomal anomalies. Ready systematic access to this ever increasing literature is essential to the cytogeneticist for purposes of both karyotype and phenotype comparisons between patients he investigates and those previously reported.

Borgaonkar's benchbook fulfils this need and his new edition updates the references to the period between 1970 and 1979. It is compiled using a computerised system of retrieval of published papers that can be rapidly published and hence be almost up to date at the time of publication.

The main section consists of papers on structural chromosome variations such as deletions, inversions, and translocations arranged in order of chromosome, arm, region, and finally band number. Further sections cover numerical chromosomal anomalies and chromosomal breakage syndromes. The book is also an aid to chromosome mapping and marker chromosome linkage studies. Doubtless future editions will refine phenotype-karyotype correlations further as high resolution banding techniques come into wider use.

RA THOMPSON