deficiency. The refractoriness of thrombotic complications in this disorder to conventional heparin therapy is well illustrated. If the diagnosis had been made earlier and appropriate treatment, such as oral anti-coagulation or possibly infusion of antithrombin III concentrate, had been started, the unusual occurrence of a thrombotic death in a patient with acute myeloid leukaemia might have been avoided.

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References

Isolation of Gardnerella vaginalis from women attending gynaecological clinics and general practice surgeries

It is now recognised that Gardnerella vaginalis probably plays a part in the causation of non-specific vaginitis. The association with various anaerobic species has already been noted. Clinical symptomatology is not an adequate indication of the diagnosis of non-specific vaginitis; careful observation of the character of the vaginal discharge is needed, together with measurement of vaginal pH and microscopy for leucocytes, "clue cells," and Gram variable coccobacilli. This is probably best carried out in the special clinic, but the following study was conducted in a district general hospital, showing the problems which may be encountered and the contribution which may be made in a routine microbiology laboratory.

We examined specimens of vaginal discharge from 74 patients from whom no other vaginal pathogen had been isolated. Thirty two of these were seen in a gynaecological outpatient clinic complaining of vaginal discharge (group 1). The remainder (42) were asymptomatic women attending a family planning clinic for routine cervical cytology (group 2).

Specimens of vaginal discharge were obtained at vaginal examination and placed immediately in 1 ml of prereduced thioglycollate USP Medium (Oxoid). The vaginal pH was measured with pH paper. A swab was also obtained, from which a Gram stain was prepared. Culture for anaerobes was carried out using standard methods. G vaginalis was isolated and identified according to the methods of Taylor et al (except in addition to 20 mg/l nalidixic acid, the selective medium contained 2 mg/l gentamicin, 2 mg/l amphotericin, and 125 mg/l sodium azide) and Taylor and Phillips.

High vaginal swabs in transport medium from a third group of 28 general practice patients with vaginal discharge were also cultured for G vaginalis because Gram staining showed the presence of clue cells, Gram variable coccobacilli, and absence of pus.

The results are shown in the Table. Measurement of pH was found to be unreliable in the clinic and did not correlate well with results. There was no significant difference between the numbers of isolations of G vaginalis in group 1 and group 2 (x² test). Anaerobes, however, were isolated significantly more often in group 1 (p < 0.01). Thus symptomatic vaginal discharge was not associated with isolation of G vaginalis. Microscopy of specimens from three patients showed a gross excess of leucocytes; one of these was from group 1 and two from group 2. Anaerobes were isolated from one of these but G vaginalis was not found. The remaining 71 patients had either small numbers of leucocytes or no pus in their vaginal secretions.

These patients therefore fulfill some of the criteria for the diagnosis of non-specific vaginitis according to Tabaqchali et al. Only 40, however, fulfilled the criteria of Ga 'neri's (presence of Gram variable coccobacilli and possible clue cells). Our isolation rate of 8/71 (11·3%) for G vaginalis is considerably lower than that of Tabaqchali (57%); however, it must be remembered that 40 of these 69 patients were not complaining of any symptoms.

G vaginalis was isolated from 15 anaerobes and from 10 of the general practice patients. This reconfirms the reliability of Gram staining as an indication of the presence of G vaginalis and also shows that ordinary high vaginal swabs in transport medium give satisfactory recovery rates. In fact, the isolation rate in this group (54%) was much closer to that of Tabaqchali, suggesting that, in our hands, this method gave better results that the use of prereduced broth as a transport medium.

When we consider all 102 patients from whom cultures were obtained there is a significant association between the isolations of G vaginalis and anaerobes; G vaginalis alone was isolated from 12 patients, anaerobes alone from 14, and both from 12.

It is clear that the association of G vaginalis and anaerobes with non-specific vaginitis is complex, and that clinical symptomatology is no guide to subsequent isolation. Our study has shown, however, that G vaginalis may be satisfactorily isolated from general practice patients without complex collection methods. Some simple guidelines on the relevance of G vaginalis for general practitioners and routine microbiological laboratories are needed.

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<table>
<thead>
<tr>
<th>Patients</th>
<th>Isolations</th>
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<tr>
<td></td>
<td>G vaginalis only</td>
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<tr>
<td>Group 1 (n = 32)</td>
<td>2 (6%)</td>
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<tr>
<td>Group 2 (n = 42)</td>
<td>3 (7%)</td>
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Overcoming the hazards of storing cultures in liquid nitrogen

Many laboratories find it both rapid and convenient to store microbiological cultures in liquid nitrogen. The Code of Practice for the Prevention of Infection in Clinical Laboratories and Post-Mortem Rooms (para 23b), however, specifically excludes the storage of ampoules containing infective material in the liquid phase, although storage in the vapour phase is permitted.

It is likely that some clinical laboratories are still storing cultures in the liquid phase of liquid nitrogen either because they have inherited a liquid phase storage vessel (for example, Union Carbide LR30A) or because they are unaware of the regulations. Some vials invariably leak liquid nitrogen when immersed, and on subsequent removal may explode as a result of the change of temperature causing a rapid expansion of the liquefied gas. If the explosion occurs after the vials are removed from their protective cardboard tube the danger to the individual is greatly increased, as is the disruption caused in the laboratory. Although vials can be prevented from exploding by sealing them in a membrane (Nunc Cryoflex), this is both time consuming and an additional expense.

With the assistance of the British Oxygen Company it has been possible to produce a simple and effective method of storing vials in the vapour phase of liquid nitrogen in storage vessels originally designed for liquid phase storage. The modification entails soldering the side seam of the storage canister (Figure) and soldering a circular blank to its base over the existing mesh. To prevent liquid entering the modified canister, the level of liquid nitrogen in the container needs to be lowered and a measure is available for this or can easily be made. Also topping up needs to be done with care.

The only problem experienced has been leakage through imperfectly soldered joints. This can be remedied by resoldering. The small cost of the modification for each canister is amply justified by not having to replace a liquid phase refrigerator with one designed for vapour phase storage in order to comply with the Howe Code of Practice.

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Reference

Microbiology in Blood Transfusion. John AJ Barbara. Institute of Medical Laboratory Sciences Monographs. (Pp 211; softback £7.50.) John Wright & Sons Ltd. 1983.

This is a delightful addition to the Medical Laboratory Sciences Monograph Series. It is concise with a rapid style which makes easy reading. It has been expertly printed and the author (and his wife!) have to be congratulated on a work in which I could find no typing or printing errors. The information is given quickly and expertly and the reader rapidly acquires the obvious enthusiasm for detailed and informed opinions. This book will be a considerable value for those in training for Higher Examinations and for those charged with organising and operating modern blood transfusion laboratories.

RUTHVEN MITCHELL


This is another worthy addition to the well known series. It contains fourteen contributions of which nine originate from the USA, two from Canada, and one each from France, Japan, and the United Kingdom (in strict alphabetical order!). The overall choice of topics is well balanced with something of interest to most general histopathologists. I welcome the inclusion of the short historical overview of Anton Ghon, and the less than common chapters on forensic pathology and the autopsy. It should be a particularly attractive volume for pathologists interested in the respiratory system, with no less than three chapters from which to choose (two of them, The Relation of Asbestos Burden to Asbestosis and Lung Cancer and Small Airways Disease, and Mineral Dust Exposure cover closely related topics). Inevitably the contributions vary in their style and clarity but most are adequate apart from the occasional lapse—(what does “...although there are frequently unusual atypias of the bronchial epithelium” mean?), on page 329.

The reviews of the pancreatic islet tumours (K Mukai), Neoplasms in Infants (H Isaacs), Human Papilloma Virus Cerebral Infections and Gynaecological Cancer (Meisels et al), and IgA Nephropathy (Stachura), are particularly helpful and comprehensive. Nezelof’s chapter dealing with the histiocytoses gives an updated account of this complex subject but I sorely missed an allusion to the condition of malignant histiocytosis of the intestine particularly since other much less common entities are described and referred to in the bibliography.

In most instances the illustrations are helpful and of good quality but some of the macrophotographs (chapters on breast carcinoma and examination of resected lungs) are unclear.

The references are well selected and up to date in most contributions but some quote an unnecessarily large number of pre-1975 papers, many of which are case reports. Confusingly, in four chapters they are listed in alphabetical order and in the more conventional Vancouver style in the rest.

At £40 (for only half of the annual output from the series) most pathologists will hope to see a copy of this book from their departmental library and will enjoy and benefit from the experience.

J PIRIS


The latest volume in the series contains seven papers which cover many aspects of the analysis and quantitation of images produced by light and electron microscopy and the use of flow cytometry for cytological material. It is therefore a guide to a newly developing field in diagnostic pathology.

The methods described range from the cheap, manual point counting methods using optical grids to complex but increasingly available computer based systems.

Many of the general problems which may be encountered when trying to detect cellular images and their subsequent separation into different groups by measurements of shape and texture are discussed in detail. Specific papers on the analysis of skeletal muscle and the characterisation of abnormal nasal epithelium are included.

All the papers are well referenced, including older basic articles and more recent publications up to 1982.

Anyone with an interest in the quantitation of biological images which is either latent, developing, or well established will find something of interest in this book. It is a useful addition to the departmental library.

C SOWTER

Correction

An error occurred in the letter by Dyas et al in the July issue. The first sentence of the seventh paragraph should read: “G vaginalis was isolated from 15 and anaerobes from 10 of the general practice patients.”


Notice

Symposium on analytical methods in forensic chemistry and toxicology

This symposium is sponsored by the American Chemical Society Division of Analytical Chemistry and will be held in conjunction with the 189th ACS National Meeting in Miami, Florida (28 April–3 May, 1985). The scientific programme will comprise invited lectures and contributed papers dealing with the state of the art of analytical methodology in forensic chemistry and toxicology.

Abstracts for presentation are invited. Papers submitted for consideration may be reviews or original research papers and should be sent to Dr MH Ho, Department of Chemistry, University of Alabama in Birmingham, Birmingham, Alabama 35294 by 30 November 1985. Publication of the proceedings as a hard cover book in the ACS Symposium Series is planned.

Some new titles

The receipt of books is acknowledged, and this listing must be regarded as sufficient return for the courtesy of the sender. Books that appear to be of particular interest will be reviewed as space permits.

