Correspondence

Safer staining method for acid fast bacilli

I read with interest the article by Ellis and Zubrowany on the use of a non-phenolic staining solution for acid fast bacilli and can report that the technique works well in our hands. Any modification of standard staining techniques that can reduce the use of hazardous chemicals is to be welcomed and to that end we substituted phenol with the LOC High Suds in several other methods used in this department.

The following techniques were tried:
(a) Long Zielhl-Neelsen stain, for lipofuchsind.
(b) Lendrum's carbol chrome tar, for eosinophil granules.
(c) Gram stain (where dilute carbol fuchsin is used to stain Gram negative organisms) for bacteria.
(d) Modified Zielhl-Neelsen stain, for cryptosporidia.

I can report, in each case, that the results obtained were comparable with those obtained with the original techniques. I would recommend the use of LOC High Suds in all of these techniques as a safer, cheaper substitute for phenol.

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Seroconversion for Helicobacter pylori

Kuipers et al. recently reported a very low seroconversion for Helicobacter pylori infection in an adult population. They measured H. pylori immunoglobulin G (IgG) antibodies in two serum samples taken from each of 115 patients, obtained with a mean interval of 11-5 years, and found that only two patients became infected during follow up. From their data, the authors suggested that the age related increase in H. pylori prevalence was due to a dominant infection rate in childhood. Data on seroconversion in an untreated population are quite scarce. We report our data on 207 asymptomatic Italian children (aged 4-15 years) and 1010 blood donors (aged 18-65 years) who have been assessed serologically for both IgG and IgM (by in-house enzyme linked immunosorbent assay (ELISA), with a specificity and sensitivity of 93%).

Our results show that the prevalence of H. pylori IgG antibodies increases with age, both in children and in adult blood donors, but that the prevalence of H. pylori IgM antibodies is highest in the 18-25 year age group and that it decreases with age (figure). Concentrations of IgG or IgM antibodies in H. pylori positive patients (measured by optical density at 470 nm) did not change with age. Our data strongly support their hypothesis of an age-cohort effect, with the acquisition of most H. pylori infection during youth (below the age of 20 years).

High IgM titres consistent with a first contact with the infection associated with low IgG titres, that consistently correlate with active H. pylori gastritis, very support the hypothesis of a spontaneous elimination of the infection in young patients. A spontaneous elimination of the first infection was shown in 33 out of 134 Gambian children aged 1-15 months by measuring serum antibodies and performing a 14C urea breath test every month over a period of 2 years. Most contact with H. pylori infection occurs in childhood, but the majority of the younger subjects will spontaneously eliminate it. In Italians this occurs mostly during the second or third decade and in Gambians in the first 5 years of life; the difference is probably related to either hygiene conditions or the nutritional status of the population.


Tissue artefacts caused by sponges

Following the recent correspondence by Platt and Newman regarding the use of tea bags or synthetic Shandon bags in the processing of small biopsy specimens, we wish to draw attention to a tissue artefact which may occur when such specimens are processed in synthetic bags. Following the discovery that triangular shaped defects in renal and liver biopsy specimens were due to the use of foam sponges in embedding cassettes, we changed our procedure and processed all such specimens wrapped in perm paper. Recently, however, our laboratory ran out of perm paper and for a few weeks we processed renal biopsy specimens in Shandon bags. We soon noticed a regular elliptical defect (fig 1) was occurring in tissue sections. Close inspection of the bag

Figure 1 Elliptical effect in tissue sections.
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