Letters to the Editor

Is enrichment culture necessary for isolating *Campylobacter jejuni* from faeces?

There has been debate in your columns previously as to the necessity of including an enrichment stage when culturing human faecal samples for "thermophilic" *Campylobacter*.¹⁻⁴ Between May and October 1985 19 of the 21 microbiology laboratories in Wales participated in a study under the auspices of the Welsh Standing Specialist Advisory Group in Microbiology to investigate this need.

Each laboratory used its own selective technique for both primary isolation and subculture after enrichment. Enrichment was performed as described previously.⁵ Only two of the participating laboratories used identical cultural techniques.

A total of 16 837 samples were cultured. One thousand and forty four (6.2%, range from 1.8–11.5%) yielded *Campylobacter* on direct culture and a further 166 after enrichment, representing an overall increase in yield on enrichment of 15.9%. The increase varied considerably between laboratories, from 3.2% in one to 85.7% in another. The laboratory which obtained the highest increase used commercially supplied ready poured plates for selective isolation. This observation led to a subsequent study comparing a ready poured medium with an identical freshly prepared one. Seven positive isolates were detected on the freshly prepared medium. Two of these failed to grow on the ready poured medium, and the remaining five grew less profusely.

Clearly, many variations in methodology exist in our region and this may be reflected nationwide. Furthermore, our results suggest that the different selective techniques are not all equally efficient. While enrichment may not be required for specimens cultured by optimal methods it would seem to be necessary in many cases in practice.

Doubt still exists as to the optimal selective technique for the isolation of *Campylobacter* from human faecal samples. Various workers have reported promising results with blood free media.^{6,7} Bolton *et al* have also been reassessing filtration methods.⁸ Until this question is resolved our experience suggests that microbiologists should continue to assess the need for an enrichment stage in the context of their own laboratories.

Before this investigation was undertaken just three laboratories in Wales routinely used an enrichment procedure while two others used it only on selected samples: as a

result of the study a further 11 laboratories introduced it into their laboratory routine.

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References

- 1 Hutchinson DN, Bolton FJ. Is enrichment culture necessary for the isolation of *Campylobacter jejuni* from faeces? *J Clin Pathol* 1983;36:1350–2.
- 2 Ribeiro CD, Gray SJ, Price TH. Is enrichment culture necessary for the isolation of *Campylobacter jejuni* from faeces? *J Clin Pathol* 1984;37:479.
- 3 Skirrow MB, Benjamin J. Is enrichment culture necessary for the isolation of *Campylobacter jejuni* from faeces? *J Clin Pathol* 1984;37:478.
- 4 Fricker CR, Girdwood RWA. Is enrichment culture necessary for the isolation of *Campylobacter jejuni* from faeces? *J Clin Pathol* 1984;37:599–600.
- 5 Ribeiro CD, Gray SJ, Price TH. A new medium for isolating *Campylobacter jejuni/coli*. *J Clin Pathol* 1982;35:1036–7.
- 6 Hutchinson DN, Bolton FJ. Improved blood free selective medium for the isolation of *Campylobacter jejuni* from faecal specimens. *J Clin Pathol* 1984;37:956–7.
- 7 Griffiths A, Ribeiro CD. Improved blood free selective medium for the isolation of *Campylobacter jejuni* from faecal specimens. *J Clin Pathol* 1988;41:704–5.
- 8 Bolton FJ, Hutchinson DN, Parker G. Isolation of *Campylobacter*: what are we missing? *J Clin Pathol* 1987;40:702–3.

False positive results in the Toxoreagent test for *Toxoplasma gondii* in immunocompetent patients

The latex agglutination test (Toxoreagent, Eiken Chemical Company) is used in many laboratories to screen serum samples for antibodies to *Toxoplasma gondii* and has been claimed to give results comparable with those of the dye test when assessed qualitatively.¹ The dye test is recognised as the serological reference test for toxoplasmosis. As a toxoplasma reference centre we are aware of positive results being reported in the latex agglutination test which cannot be confirmed by the dye test. It has also been reported that false positive latex agglutination test results may be associated with a rise in cytomegalovirus (CMV) specific IgM in heart transplant recipients.²

We looked for false positive latex agglutination test results in sera from 552 non-immunocompromised patients with various clinical symptoms considered to be compatible with toxoplasmosis but no evidence that the immune system was depressed. Fifty four samples were referred as latex agglutination test positive but were negative when run in the dye test (titre < 8). The latex agglutination test reaction was confirmed in only five (9.3%) sera, while two (22.2%) sera reacted with unsensitised latex. A further 498 sera were tested in the latex agglutination test only after they had been shown to be dye test negative. Two of these samples gave a false positive latex agglutination test result, an incidence of 0.4%, although two further sera reacted with unsensitised latex. In total, serum from seven patients gave false positive latex agglutination test results, with titres of 32 to 64. Of these sera, four (57.1%) reacted in the CMV-IgM ELISA.³ None of the serum samples reacting in the CMV IgM ELISA had *T. gondii* specific IgM when tested by ELISA.⁴

These data indicate that the false positive results previously found in heart transplant patients with acute CMV infection can also be found in other non-immunocompromised patients. In transplant recipients the reaction seems to be IgM mediated but not associated directly with CMV specific IgM nor rheumatoid factor.²

More than 49 of 54 (90%) of the sera submitted as being latex positive (= > 32) but found to be dye test negative were negative when retested in the latex agglutination test at the reference centre. The data suggest that there is some variation between laboratories in the way that this assay is performed and read. Adsorption with unsensitised latex will reduce but not remove the

Notices

Methods of Immunological Research and Diagnosis

(An at-the-bench laboratory training programme).

The Ernest Witebsky Center for Immunology, University at Buffalo, State University of New York.
June 4–17 1989.

A two week program consisting of daily practical laboratory exercises personally carried out by participants, accompanied by lectures, demonstrations and discussions.

Contact James F Mohn, Director, The Ernest Witebsky Center for Immunology, 234 Sherman Hall, Buffalo, New York 14214.

Inquiries should be received by 10 March 1989 to ensure consideration for acceptance.

Second International Conference on Gastrointestinal Cancer

August 27–September 1, 1989
Jerusalem, Israel

For further information please contact:
GIA Secretariat, PO Box 50006, 61500
Tel Aviv, Israel.

The symposium will be preceded by:
Clinical applications of a long-acting
somatostatin analogue on August 27 at
3.30 pm, The Jerusalem Hilton.

Fourth South-East-European Symposium of Paediatric Surgery

Graz, Austria, September 8–9, 1989
on normal and disturbed oesophageal
function in childhood
(Simultaneous translation)

Inquiries to: Professor Dr H Sauer,
Department of Paediatric Surgery, the
University of Graz, Heinrichstraße 31,
A-8010 Graz, Austria.

Corrections

The letter: False positive results in the Toxoreagent test for *Toxoplasma gondii* in immunocompetent patients (*J Clin Pathol* 1988;41:1135–6) should have indicated the first author to have been JK Wood. We apologise for this oversight.

Similarly, an error was made in the legend to Fig. 1a in the laboratory technique: Detection of cytomegalovirus by in situ hybridisation and immunohistochemistry using new monoclonal antibody CLH2 (*J Clin Pathol* 1988;41:1005–9). The legend should have read: Detection of CMV infected cells by in situ hybridisation in a lung section.

FUTURE IMLS SYMPOSIA

Date/Location	Subject/Title	Organiser
4 March 1989 Southampton	<i>Conception to cradle—fetal and neonatal diagnosis and monitoring</i>	Dr D McLellan, School of Pharmacy, Portsmouth Polytechnic, Park Building, King Henry I Street, Portsmouth PO1 2DZ.
18 March 1989 Cambridge	<i>Special coagulation review—educational seminar</i>	Mr D M Reardon, Haematology Department, Addenbrooke's Hospital, Hills Road, Cambridge CB2 2QQ.
March 1989 Nottingham	Microbiology/virology	Mr A Pawley, Virology Department, PHL, Queens Medical Centre, University Hospital, Nottingham.
8 April 1989 Sheffield	<i>Haematology—in a lighter vein</i>	Mr N R Porter, Haematology, Floor H, Royal Hallamshire Hospital, Glossop Road, Sheffield S10 2JF.
26 April 1989 Liverpool	<i>Laboratory developments in paediatric biochemistry</i>	Mr D Kilshaw, Pathology Department, Arrowe Park Hospital, Upton, Wirral, Merseyside L49 5PE
2–9 September 1989 Coventry	<i>IMLS Triennial Conference</i>	Mr C G Smith, Pathology Department, Dudley Road Hospital, Summerfield, Birmingham B18 7QH
17 March 1990 Cambridge	<i>Special red cell review—educational seminar</i>	Mr D M Reardon, Haematology Department, Addenbrooke's Hospital, Hills Road, Cambridge, CB2 2QQ.
30–31 March 1990 York	Microbiology/histology/cytology/immunology	Mr B Jones, Pathology Department, Royal Halifax Infirmary, Free School Lane, Halifax HX1 2YP.
April 1990 Durham	<i>Blood Group Serology '90</i>	Miss D L Trattles, Blood Transfusion Laboratory, Department of Clinical Pathology, General Hospital, Ayresome Green Lane, Middlesbrough, Cleveland TS5 5AZ.
13–16 September 1990 Sheffield	<i>Microbe '90</i>	Mr C J P Brazier, Public Health Laboratory, Northern General Hospital, Herries Road, Sheffield S3 7AU.
September 1990 Birmingham	Cellular pathology	Miss L Grosvenor, Histopathology Department, General Hospital, Steelhouse Lane, Birmingham B4 6NH.
April 1991 Durham	Microbiology	Mr G P Hedley, Regional Transfusion Centre, Holland Drive, Barrack Road, Newcastle upon Tyne NE2 4NG.
April 1991 Sheffield	<i>Haematology—in a different vein</i>	Mr N R Porter, Haematology, Floor H, Royal Hallamshire Hospital, Glossop Road, Sheffield S10 2JF.
September 1991 Birmingham	Microbiology	Mr T Johnson, Microbiology, Department, Selly Oak Hospital, Raddlebarn Road, Selly Oak, Birmingham B29 6JD.
September 1992	<i>IMLS Triennial Conference</i>	
September 1993 Birmingham	Microbiology	Mr T Johnson, Microbiology Department, Selly Oak Hospital, Raddlebarn Road, Selly Oak, Birmingham B29 6JD.
April 1994 Durham	Microbiology	Mr G P Hedley, Regional Transfusion Centre, Holland Drive, Barrack Road, Newcastle upon Tyne NE2 4NG.