population; the technical problem is that testing for antimicrobial susceptibility to obtain minimum inhibitory concentrations was only performed for strains resistant to methicillin by diffusion.\(^1\)

It may therefore prove more reliable to screen for penicillin resistant pneumococci using oxacillin discs that do not yield false sensitive results,\(^3\) so avoiding the risk of primary misclassification of clinical isolates responsible for invasive disease.

References


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Drs Klugman and Koornhof comment:

The recommendation for the use of oxacillin in preference to methicillin discs is based on the observation by Swenson et al\(^1\) that three of 34 strains resistant to penicillin were falsely identified as susceptible using a 5 μg methicillin disc, compared with 0 of 34 using 1 μg oxacillin discs after incubation on Mueller–Hinton sheep blood agar plates in ambient air. Jacobs et al\(^2\) showed that two of 29 compared with one of 29 were falsely identified as susceptible, using the two discs, respectively, after incubation on Mueller–Hinton agar with 5% lysed horse blood in ambient air. Neither of these differences is significant. Though a definitive answer to the advantages of one method over the other rests on an analysis of a larger number of strains, even a combination of the above data fails to show a significant difference between the tests, giving a false susceptibility rate of five of 63 (8%) with the methicillin disc compared with one of 63 (2%) with the oxacillin disc (\(\chi^2=1.57, p=0.2\), with Yates’ correction).

The 20% false susceptibility rate quoted by Dr Conde-Glez from another of our papers,\(^3\) is due to his misinterpretation of our presentation of all multiply resistant strains, identified in various day care centres, as multiply resistant penicillin susceptible (MRPS) strains. No inference of the prevalence of false susceptibility can be drawn from that study. A possible estimation of the true prevalence of penicillin resistance in urban and rural children may be calculated, assuming that for every 58 strains identified as resistant using the methicillin disc, a further five are missed. Using this estimation four additional strains to the 43 resistant strains were probably missed out of 206 isolates in the urban study, and three additional strains to the 30 resistant strains out of 96 in the rural study. We believe that the importance of these differences in carrier rates is unimportant.

We do agree, however, that primary misclassification of isolates responsible for clinical disease, especially meningitis, may be important in individual cases. The data of Jacobs et al\(^2\) indicate that neither test is 100% sensitive. In areas with high prevalence of endemic resistant pneumococci we recommend that minimum inhibitory concentrations be determined on all pneumococcal isolates from cerebrospinal fluid. Finally the distribution between resistant and intermittently resistant strains cannot reliably be made with either of these disc tests\(^1\) and must rely on MIC data from minimum inhibitory concentrations.

References


Post-streptococcal glomerulonephritis in Hong Kong

Sir,

We were interested to read the recent report of Leung et al\(^3\) on post-streptococcal glomerulonephritis in Hong Kong.\(^1\)

It is now commonly assumed that this condition is rare in developed countries but our recent experience would lead us to think otherwise.

Since July 1985 we have documented a post-streptococcal aetiology in 11 of the 16 patients with acute glomerulonephritis referred to our unit. Nine of the 11 have been diagnosed since December 1986. We have recently reviewed the case notes of all 11 patients.

One obvious difference from the Hong Kong report is that macroscopic haematuria was the commonest presenting symptom in our series. It was present in eight out of 11 patients with only three having oedema as the main complaint. Group A β haemolytic streptococcus was isolated from the throat swabs of eight children, two of whom had received prior antibiotic treatment. In addition nine children had a raised anti-streptolysin O titre, seven a low serum C3 concentration, and seven raised C3 degradation products.

In general the nephritis was mild and no patients required acute dialysis. Four required drug treatment for hypertension. One of our patients presented with a dense right hemiplegia having had eight days of haematuria at home. We noticed that one child in the Hong Kong series presented with a convulsion due to hypertensive encephalopathy and this further illustrates the acute morbidity and occasional mortality associated with this illness.

We also assume that the recent increased prevalence of post-streptococcal glomerulonephritis may be due to an