Invasive *Haemophilus influenzae* (Hib) disease in a tertiary care children's hospital

Data regarding invasive *Haemophilus influenzae* type B (Hib) disease are scarce in many developing countries, leading to a delay in introduction of the vaccine as policy makers are cautious about a long term commitment to an expensive vaccine [1,2].

A retrospective study of laboratory confirmed invasive Hib disease was done in the Lady Ridgeway Hospital, Colombo, to examine the clinical, epidemiological and microbiological features. Bacteriological confirmation of invasive Hib disease was defined as positivity of one or more of the following a) blood culture b) cerebrospinal fluid (CSF) culture c) CSF antigen latex agglutination test (LAT).

The study included 34 patients, 31 (91.2%) of whom were less than 5 years of age. Their mean age was 1 year and 10 months (range 12 days to 7 years). None of the patients were vaccinated against the disease. Blood culture was done in 25, and positive in 16 cases (64%). CSF culture was positive in only 3 (10.7%) of the 28 patients in which it was done.

In all, 31 (91.2%) of children were diagnosed with meningitis, 7 (20.6%) of whom had septicaemia. Seventeen (50%) children were diagnosed exclusively by CSF antigen detection, re-establishing its value as a simple, rapid and reliable test [5]. Previous treatment with antibiotics would interfere with CSF and blood culture results, but not with the antigen test.

Resistance to ampicillin (70.4%) and co-trimoxazole (66.7%) was high, but sensitivity to chloramphenicol was 64.3%. Several recent studies have shown a similar trend, but the proportions were substantially higher in our study (ampicillin 70.4% vs. 11.1–40%, co-trimoxazole 66.7% vs. 10.3–49%) [1–4]. Sensitivity to third generation cephalosporins was 100%.

Common antibiotics administered were cefotaxime (79.4%), ampicillin (61.8%) and chloramphenicol (59.9%). Although mortality was low (5.9%), seizures

(48.4%), subdural effusion (16.1%) and cerebral oedema (9.7%) were common complications in meningitis.

Our data suggest a substantial burden of severe, preventable Hib infection in Sri Lanka. High incidence of resistance to ampicillin and low sensitivity to chloramphenicol strengthen the case for prevention through the Hib conjugate vaccine, a standard achieved in most of the developed world. The choice of antibiotic for routine treatment of bacterial meningitis should preferably include a third generation cephalosporin.

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Sanath P Lamabadusuriya, Senior Professor and Head, Department of Paediatrics, Faculty of Medicine, University of Colombo. **GKD Karunaratne**, Microbiologist, Lady Ridgeway Hospital Children, Colombo, and **Nuradh Joseph, G Rumesh Suranga**, Demonstrators, Department of Paediatrics, Faculty of Medicine, University of Colombo.

Correspondence: SPL, e-mail: <sanath_lamabadusuriya@yahoo.com> (Competing interests: none declared). Received 24 May 2006 and revised version accepted 8 August 2006.