All diagnosed patients were of primary syphilis. Among the total diagnosed TB co-infection patients, 29 had active disease and were put on ATT. Nine patients had already been treated with ATT after being diagnosed with HIV infection. Patients with HBV were treated with 2NRTIs (Zidovudine + Lamivudine) + 1NNRTI (Efavirenz) and patients with syphilis were treated with Benzathine penicillin G, 2.4 MU IM in a single dose. The patients are on regular follow-up.

This study documents fairly high rates of TB, HBV and syphilis co-infection among HIV infected persons. Thus, it should be mandatory to screen every HIV/AIDS patient for co-infection and vice-versa for early detection and a simultaneous treatment besides HIV infection management to combat the menace of this dreadful disease.

References


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Bacteriological and Molecular Studies of Group A Streptococcal Pharyngitis in a South Indian Hospital

Dear editor,

A high level of heterogeneity among the strains of group A streptococci (GAS) circulating in India has been noted.[1-3] This study was undertaken to determine the prevalence of GAS pharyngitis in children and identify the _emm_ types of GAS associated with such infections. Two hundred school children aged four to thirteen years with complaints of sore throat seen at the Pediatric outpatient clinics of a tertiary care hospital were included in the study. The beta-haemolytic streptococci isolated from throat swabs from children with pharyngitis were identified by serogrouping (co-agglutination method) and then subjected to _emm_ typing by an automated gene sequencing technique.[4] As defined by the isolation of group A streptococci, the prevalence of GAS pharyngitis was found to be 6% (12 out of 200). This pilot study shows that symptoms such as pain on swallowing and absence of coryza may be used as possible indicators of GAS pharyngitis (Table). Ten different _emm_ types were found among the 11 isolates. They were _emm_ 1-2.2, _emm_ 55, _emm_ 57, _emm_ 71 (2 isolates), _emm_ 74, _emm_ 82.1, _emm_ 95, _emm_ 112.2, st 11014 and a unique sequence, designated as subtype number st2002.1.[5] Our results on _emm_ typing show distinct differences from those reported earlier from Chennai.[2] Our finding on the high level of heterogeneity among GAS isolates causing pharyngitis shows that the molecular epidemiology of streptococcal pharyngitis is distinctly different in endemic areas. However, more such hospital-based studies on GAS isolated from acute and

| Table: Relationship between clinical signs/symptoms and GAS culture positivity |
|-----------------------------------------------|-----------|-----------|-----------|
| Clinical sign/symptom          | No. +ve | GAS +ve   | P-value   |
| Fever                          | 178     | 11        | 1.000     |
| Pain on swallowing             | 71      | 10        | 0.0006    |
| Abdominal pain                 | 39      | 3         | 0.706     |
| Nausea/vomiting                | 19      | 3         | 0.092     |
| Tonsillopharyngeal erythema    | 189     | 12        | 1.000     |
| Tonsillar exudate              | 12      | 3         | 0.027     |
| Tonsillar swelling             | 196     | 12        | 1.000     |
| Pharyngeal exudate             | 149     | 6         | 0.080     |
| Hoarseness of voice            | 114     | 5         | 0.268     |
| Coryza/rhinitis                | 166     | 4         | 0.0001    |
| Headache                       | 49      | 2         | 0.734     |
| Tender cervical                | 36      | 5         | 0.044     |
| lymph nodes                    | 74      | 1         | 0.035     |

Total children = 200, GAS culture positive = 12

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invasive GAS infections are necessary to confirm this observation.

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References


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Preservation of Vibrio cholerae by Suspension in Normal Saline

Dear editor,

Sporadic cases and small outbreaks of cholera continue to occur in Asian countries. Epidemiological and microbiological studies demand preservation of the isolated strains in the region. Vibrio cholerae can be preserved by lyophilisation and at ultra low temperature[1,2] however, this facility may not exist in most laboratories. Members of Enterobacteriaceae family can be well preserved on egg media or by stab method[3] but not V. cholerae (personal observation). Survival of V. cholerae for more than a month is not possible even on nutrient agar slants stored at 4°C. Our accidental observation that V. cholerae suspended in normal saline pH 8 and kept at 4°C retained viability for more than six months prompted us to study preservation of suspension of V. cholerae in normal saline with pH 8 solution stored at 4°C. The pH of the normal saline is adjusted to 8 because vibrios prefer alkaline pH and are susceptible to acid pH.

Classical V. cholerae 569B Inaba procured from Haffkine institute, Mumbai, India was received as lyophilized culture. Nine isolates of V. cholerae El Tor Ogawa isolated during 2003-2006 from cases of cholera in Indore city and preserved in 15% glycerol containing nutrient broth (Hi Media, India) at −70°C were included in the study. The nutrient agar (Hi Media, India) slants were inoculated with cultures and incubated overnight at 37°C. The growth on nutrient agar slant was harvested in 5 ml of the normal saline pH 8 and the opacity adjusted to 0.5 at 635 nm using colorimeter (ERBA Japan). The suspensions were aliquoted in 9 mL amount in 10 mL injection vials in triplicate. The vials were capped with rubber bungs, sealed with aluminium caps and stored in domestic refrigerator. The temperature was recorded every morning and evening round the year and was in the range of 4-8°C.

The initial mean count for standard strain of V. cholerae 569B Inaba and other clinical isolates of V. cholerae were 0.8-1.5 × 10^9 CFU/mL in normal saline. The suspension of standard strain of V. cholerae 569B Inaba and isolates number 4 and 8 (randomly selected) were subjected to viable counts[1] on the day one and subsequently once a month for 12 consecutive months. One hundred micro litre of the ten fold dilutions were plated on nutrient agar plates in duplicate and the plates showing colonies 50-200 were used for the viable count estimation. The remaining culture suspensions were subjected to viable count on day one and then after 12 months. The viability study results for the standard strain 569B and isolate number 4 and 7 were similar (Figure).

The colony morphology remained typical after revival from normal saline and the subculture at the end of one year did not show any change in staining and biochemical characters. The antigenic properties with regards to agglutinability with the antisera remained the same. The mean counts of surviving bacteria among the nine isolates of V. cholerae were 0.8-1.8 × 10^4 CFU/mL in normal saline.