Blood was collected and serum samples were screened for HBsAg by the enzyme linked immunosorbent assay (ELISA) method (Hepanostika kit). A third generation ELISA kit was used to screen for the antibody to HCV. ELISA and Rapid tests were used to detect antibody to HIV as per national AIDS control organisation (NACO) guidelines. In the present study of 126 multitransfused thalassemia cases, seroprevalence of the antiHIV and antiHCV antibodies and of HBsAg was 3.97, 43.65 and 2.38%, respectively.

In thalassemia cases receiving more than 50 transfusions, seroprevalence of the antiHIV and antiHCV antibodies and of the HBsAg was 5.43, 57.6 and 2.38%, respectively (Table).

Blood screening using the viral antigen and nucleic acid amplification tests (NAT) can reduce the window period of HIV, Hepatitis B virus and Hepatitis C virus infections substantially.[3] Estimates of the risk of blood-borne infections are essential for monitoring the safety of blood supply and the impact of new screening tests. Blood transfusion, a life saving modality, can be made safer by the introduction of the NAT for screening of blood units for HIV, Hepatitis B and Hepatitis C viruses and it can be made cost-effective by pooling samples.[4]

References


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Leptospirosis Laboratory, Madras Medical College: Review of Our Experience (2004-2006)

Dear editor,

The Leptospira laboratory in Madras Medical College at Chennai was established in 1994. We have already published our experience during the period 1995-1997.[1] In this article, we discuss our experience during the period 2004-2006, with the samples received from public hospitals in Chennai. There has been a dramatic increase in the numbers of both samples and of positive cases, probably because of increased awareness of the illness (Table 1). These samples were from patients suffering from fever. During 2006, 2765 positive cases were reported from public sector hospitals. The data of numbers of samples and positive samples from city hospitals are shown in table 2. Government Stanley Hospital (GSH) caters to patients from North Chennai while Government Royapettah Hospital (GRH) caters to patients from south Chennai. Government General Hospital (GGH) and Kilpauk Medical College and Hospital (KMC) cater to patients from central Chennai and the surrounding areas. The Institute of Child Health (ICH) caters to children from all areas.

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of samples</th>
<th>Positives (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>6512</td>
<td>963 (14.7%)</td>
</tr>
<tr>
<td>2005</td>
<td>6909</td>
<td>1724 (24.9%)</td>
</tr>
<tr>
<td>2006</td>
<td>8537</td>
<td>2765 (32.3%)</td>
</tr>
<tr>
<td>Total</td>
<td>21,958</td>
<td>5452 (24.8%)</td>
</tr>
</tbody>
</table>

Table 1: Year wise distribution of leptospirosis in Chennai (2004-6)
Samples were received throughout the year and the data reveal that leptospirosis occurs throughout the year although the number may increase during the monsoon season (June to January). This emphasizes the importance of a polluted environment which is an important epidemiological risk factor.

It has been our policy to do the macroscopic slide agglutination test (MSAT) as a screening test for all the samples received. All positive MSAT results are confirmed by the Microscopic Agglutination Test (MAT). Nine pathogenic and one nonpathogenic serovars were included in antigen preparation. *L. icterohaemorrhagiae, L. australis, L. grippotyphosa, L. pomona, L. sejroe, L. bataviae, L. louisiana, L. hebdomadis, L. javanica and L. patoc* were the serovars used. The antigen was prepared using standard methods.[5]

The common serovars found were *L. icterohaemorrhagiae* (48.0%) followed by *L. australis* (37.0%) and *L. grippotyphosa* (26.0%). During our study in 1995-1997, *L. autumnalis* (48.3%) was found to be the predominant serovar followed by *L. icterohaemorrhagiae* (31.1%).[1]

Therefore, we conclude that there has been a dramatic increase in the number of leptospirosis cases reported in our laboratory during the period 2004-2006 and the common serovars are *L. icterohaemorrhagiae, L. australis* and *L. grippotyphosa*. We also conclude that leptospirosis in Chennai occurs throughout the year.

References


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Table 2: Hospital wise distribution of patients with leptospirosis

<table>
<thead>
<tr>
<th>Hospitals</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of samples</td>
<td>Positives no. (%)</td>
<td>No. of samples</td>
</tr>
<tr>
<td>GGH</td>
<td>1986</td>
<td>370 (18.6)</td>
<td>2347</td>
</tr>
<tr>
<td>GSH</td>
<td>1214</td>
<td>198 (16.3)</td>
<td>1605</td>
</tr>
<tr>
<td>KMCH</td>
<td>1202</td>
<td>157 (13.0)</td>
<td>1123</td>
</tr>
<tr>
<td>GRH</td>
<td>430</td>
<td>55 (12.7)</td>
<td>564</td>
</tr>
<tr>
<td>ICH</td>
<td>1680</td>
<td>183 (10.8)</td>
<td>1270</td>
</tr>
</tbody>
</table>

GGH - Government General hospital; GSH - Government Stanley Hospital; KMCH - Kilpauk Medical College and Hospital;
GRH - Government Royapettah Hospital; ICH - Institute of Child Health and Hospital

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