Hepatitis B Virus Markers in Adult Patients with Glomerular Diseases

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Dear Sir,

The association between hepatitis B virus (HBV) infection and glomerular disease was first reported in 1971 [1], and various morphological patterns including membranous, membranoproliferative and IgA glomerulonephritides have been described with great geographical variations [2-4]. In order to appreciate the frequency of HBV-related nephropathy, we reviewed the HBV status of 137 adult patients with glomerular diseases, born and living in Spain at the time of diagnosis, studied during the years 1983-1994. Hepatitis C virus antibodies were negative in all patients by ELISA-2. There was a delay between apparent onset of nephropathy and hepatitis C virus test in some patients. HBV markers were investigated before kidney biopsy (table 1). HBsAg was detected in 4 of the 137 patients: in 3 of the 34 patients with membranous nephropathy and in 1 of the 30 patients with idiopathic nephrosis. The 4 patients exhibiting HBsAg were HIV-negative men. Three of the 4 patients with HBs antigenemia (2 of them suffering from membranous nephropathy and 1 from idiopathic nephrosis) were healthy HBsAg carriers with normal liver function tests; they were anti-HBc and anti-HBe antibody positive and HBV DNA negative. The 4th patient, a 38-year-old man suffering from membranous nephropathy, presented with nephrotic syndrome. He had received blood transfusions at the age of 20 years. Serum HBsAg and anti-HBc were positive and HBV DNA and hepatitis D virus markers negative. The serum alanine aminotransferase values were increased, and a liver biopsy specimen showed chronic persistent hepatitis. In addition, 7 patients were anti-HBc/anti-HBe positive, and 1 was anti-HBe positive. None of these patients presented with a previous history of hepatitis or had increased levels of serum alanine aminotransferase. The prevalence of HBsAg carriers among apparently healthy volunteer blood donors was estimated.

Table 1. HBV markers in patients with glomerular disease

<table>
<thead>
<tr>
<th>Disease</th>
<th>HBsAg</th>
<th>HBc</th>
<th>HBe</th>
<th>DNA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Membranous</td>
<td>3/34</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Idiopathic</td>
<td>1/30</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Healthy carriers</td>
<td>3/4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Healthy carriers</td>
<td>1/4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nephrotic syndrome</td>
<td>1/1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Minimal-change, mesangial proliferation, and focal hyalnosis. Antineutrophil cytoplasmic antibodies negative.

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mated to be 1.8% (8/440) in 1982 in Barcelona [5] and 1.03% (53/5191) in 1985 in Madrid [6]. The percentages of positive anti-HBs/anti-HBc and isolated anti-HBc in the Blood Transfusion Department of the Ramón y Cajal Hospital in 1987 were 15.8 (24/152) and 1.3 (2/152), respectively [7]. Therefore, membranous nephropathy appears to be the most common form of HBV-related glomerular disease in our patients. Although this association has been previously reported in this country in series including children and adults [8, 9], the incidence observed in this study needs to be confirmed in a larger series of Spanish adults.

References

Gonzalo/Bárcena/Orte/Ortuño