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 HBcAg 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-HBs/anti-HBc positive, and 1 was anti-HBc 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 esti-

Table 1. HBV markers in patients with glomerular disease

Minimal-change, mesangial proliferation, and focal hyaline sclerosis. 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 Ramon 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

- Combes B, Stastny P, Shorey J, et al: Glomerulonephritis with deposition of Australia antigen-antibody complexes in glomerular basement membranes. *Lancet* 1971;ii:234-237.
- Johnson RJ, Couser WG: Hepatitis B infection and renal disease: Clinical, immunopathogenic and therapeutic considerations. *Kidney Int* 1990;37:663-676.
- Levy M, Chen N: Worldwide perspective of hepatitis-B-associated glomerulonephritis in the 80s. *Kidney Int* 1991;40(suppl 35):24-33.
- Chen N, Lesavre Ph, Noel LH, et al: How frequent are hepatitis B virus markers in adult patients with glomerular diseases in a low endemic country? *Nephron* 1993;63:400-403.
- Vargas V, Pedreira JD, Estaban R, et al: Marcadores serológicos del virus de la hepatitis B en población sana. *Med Clin (Barc)* 1982;78: 265-267.
- Ruiz del Arbol L, Moreira VF, Pascasio JM, et al: Marcadores serológicos de infección por el virus de la hepatitis B en la enfermedad hepática alcohólica. *Rev Clin Esp* 1985;117:390-393.
- Pascasio JM, Bárcena R, Zamora C, et al: Pre-valencia de ALAT elevada y marcadores serológicos del virus de la hepatitis B en donantes incriminados en hepatitis posttransfusional no-A,no-B. *Rev Clin Esp* 1987;180:142-146.
- Guardia J, Pedreira JD, Martinez-Vazquez JM, et al: Glomerulonephritis chroniques avec antigène Hb. *Nouv Presse Méd* 1975;4:2923-2925.
- Cannata Andia J, Perez-Garcia R, Egido de los Rios J, et al: Glomerulonefritis membranosa idiopática. Evolución clínica e histológica. *Rev Clin Esp* 1977;151:371-375.