Prevalence of Antibodies to Hepatitis C Virus in Sera from Patients with Systemic Necrotizing Vasculitis

L.		Theilmann
K.		Gmelin
B.		Kallinowski
B.		Kommerell
J.		Koderisch
K.		Andrassy

Department of Internal Medicine, University of Heidelberg, FRG

PD Dr. L. Theilmann, Medizinische Universitätsklinik Heidelberg, Bergheimer Strasse 58, D-W-6900 Heidelberg (FRG)

Dear Sir,

Necrotizing vasculitis is a serious disease with an high fatality. Although knowledge of its cause is limited, hepatitis B virus infection has been implicated in the pathogenesis of at least some forms of vasculitis, e.g. polyarteritis nodosa, as viral surface proteins (HBsAg) have been detected in the wall of the affected vessels of these patients [1]. Recently, an agent, responsible for most cases of posttransfusional hepatitis, has been isolated and designated hepatitis C virus (HCV) [2]. Sera from patients with chronic HCV infection have been shown to be positive for antibodies to this virus [3]. To elucidate a possible role of HCV in the pathogenesis of systemic vasculitis, we tested sera from 56 patients with systemic necrotizing vasculitis for the presence of anti-HCV (Ortho Diagnostics) before the initiation of therapy. Group I: 8 male and 13 female patients with Wegener's granulomatosis (median age 53.5 years; range 11–71 years), all positive for antineutrophil cytoplasmic antibodies (median titer 1:80; range 1:20–1:1,280) as detected by immunofluorescence [4]. Group II: 7 male and 28 female patients with microscopic polyarteritis (median age 53.2 years; range 12–86 years, all positive for antibodies to myeloperoxidase (median 13.2; range 2.1–118) in an Elisa. Patients from both groups were negative for hepatitis B surface antigen. As a result of our investigation, only 1 patient of group I (an 11-year-old boy of Yugoslavian origin) was positive for anti-HCV (4.8%), and in group II only 1 female patient (2.9%). This low prevalence of antibodies to this new major agent of chronic hepatitis in a comparably large number of sera, strongly suggests that, in contrast to hepatitis B virus, hepatitis C virus does not seem to play a significant role in the pathogenesis of systemic necrotizing vasculitis.

References

- Popp JW, Terence JH, Dienstag JL, et al: Cutaneous vasculitis associated with acute and chronic hepatitis. Arch Intern Med 1981;141:623–629.
- Choo QL, Kuo G, Weiner AJ, et al: Isolation of a cDNA clone derived from a blood-borne non-A, non-B viral hepatitis genome. Science 1989;244:359–362.
- Kuo G, Choo QL, Alter JH, et al: An assay for circulating antibodies to a major etiologic virus of human non-A, non-B hepatitis. Science 1989;244:362–364.

Andrassy K, Koderisch J, Waldherr R, et al: Diagnostic significance of anticytoplasmatic antibodies (ACPA/ANCA) in detection of Wegener's granulomatosis and other vasculitis. Nephron 1988;49:257–258.