

P0051 Persistent hepatitis in two French travellers returning from Brazil with yellow fever

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Background: There is a large, ongoing outbreak of yellow fever (YF) in Brazil. Since 2018, at least 10 unvaccinated travelers to Brazil contracted YF and 4 (40%) died. We report the investigation of two cases of YF occurring in unvaccinated French travelers who visited Ilha Grande, RJ, Brazil, and eventually recovered but after a persistent course of hepatitis.

Materials/methods: Both cases were healthy and HIV negative males, aged 28 and 38, presenting in February 2018, within 7 days after returning from Brazil, with fever, jaundice, asthenia, thrombocytopenia and hepatitis with serum alanine aminotransferase (ALT) > 5000 UI/l and aspartate aminotransferase (AST) > 3400 UI/l (Normal < 40 UI/l). Liver cytolysis dropped \leq 4 ULN (Upper Limit Normal) within 3 weeks, but was followed by a rebound of hepatitis (ALT > 1000 UI/L), with complete ALT normalization only 6 months after YF onset. During hepatitis rebound both patients remained asymptomatic.

Results: IgM YF antibodies were detected by PRNT80 (Pasteur Cerba). At YF diagnosis, testing for acute dengue (four serotypes), chikungunya, zika, and hepatitis A, B, C, E, CMV, and EBV was negative. During the hepatitis rebound, YF RNA detection by PCR remained negative. Conversely, major YF Virus neutralizing activities were detected in plasma from both patients. Deep sequencing performed onto plasma and urine remained negative for eukaryotic pathogens. In addition, auto-immune antibodies (antinuclear antibody (ANA), anti-smooth muscle antibody (SMA), anti-liver kidney microsomal antibodies (LKM-1), anti-soluble liver antigen (SLA), and anti-mitochondrial antibody (AMA)) were negative in both patients. Patients did not take any hepatotoxic medication. No liver biopsy was performed.

Conclusions: We report 2 cases of YF in unvaccinated travelers returning from Brazil with a similar presentation and a favorable outcome despite a long course of persistent hepatitis. This persistent hepatitis probably resulted from host directed immune response to YF rather than from chronic viral infection. Patients living or traveling to endemic YF regions with persistent hepatitis should be tested for YF.

