

E0291 Seroprevalence of anti-delta antibody in chronic hepatitis B virus carriers in Brazil

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Background: In Brazil, the Amazon Basin is endemic for hepatitis D virus (HDV) infection; however, studies in other regions of the country are scarce. This study aims to map the seroepidemiological situation of anti-Delta antibodies in chronic hepatitis B carriers in all five Brazilian geographic regions.

Materials/methods: Serum samples from 1240 HBsAg positive individuals (55.4% men; mean age 43.1±13.4 years) from 24 of 26 Brazilian states were tested for the presence of anti-Delta antibodies using a commercial immunoassay.

Results: Anti-Delta antibodies were detected in 40 samples (3.2%; 55.5% males; mean age of 38.1±13.8 years). Age less than 20 years was significantly associated with HDV infection ($p < 0.001$). The median HBV viral load in HDV-negative individuals was 3.7×10^3 UI/mL, while in the HBV/HDV co-infected individuals were slightly lower, 2.5×10^3 UI/mL. HDV prevalence varied in each Brazilian region and even among the states of the same region, as evidenced in figure 1. The highest prevalence of HDV infection was found in the North (8.5%; $p < 0.001$), followed by Central West (2.5%), Southeast (1.7%) and Northeast (0.8%). No positive case were identified in South region. Anti-Delta antibodies were detected in 12 Brazilian states, but more than 60% of the positive cases were observed in two states, Amazonas and Acre located in the western portion of the Amazon region, where the prevalence were 13.8% and 24.3%, respectively.

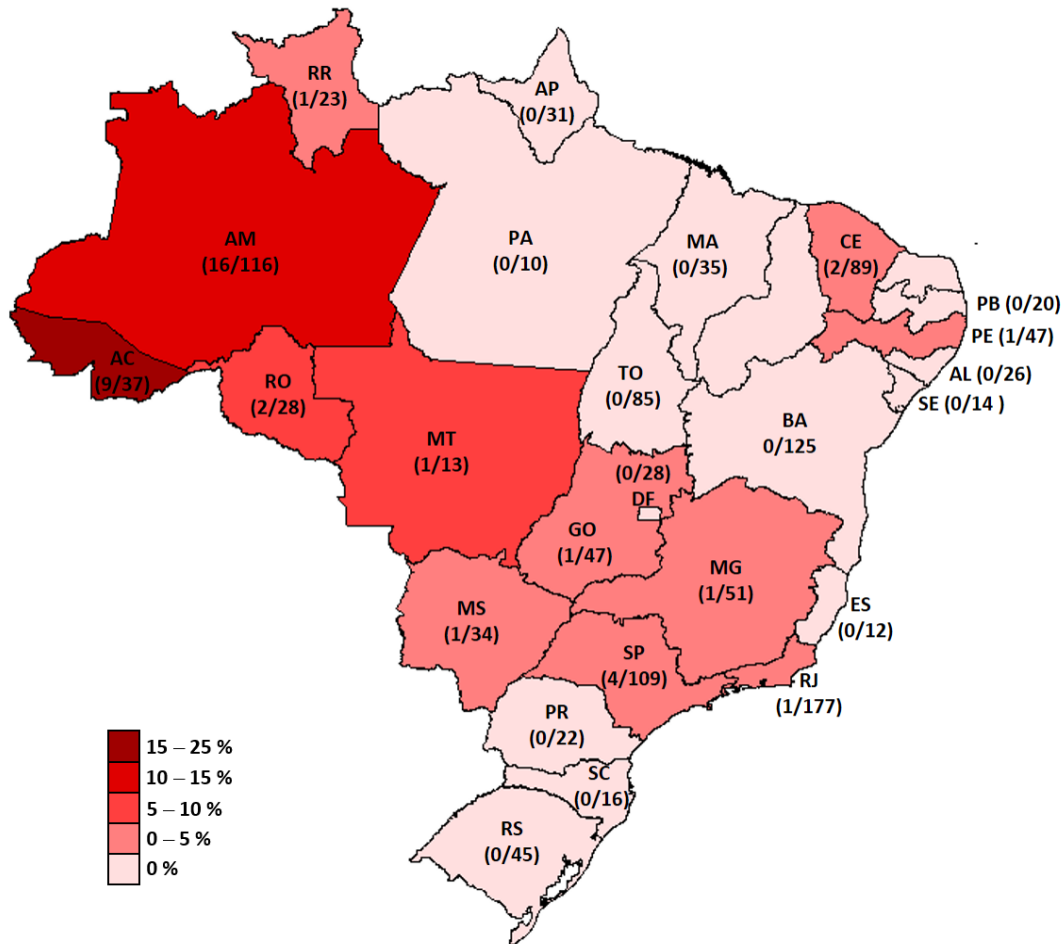


Figure 1. Seroprevalence of anti-Delta-positive samples among chronic hepatitis B carriers according to locality. The number of positive samples and total amount tested in each State are shown in parenthesis.

Conclusions: The overall HDV prevalence of 3.2% emphasizes that HDV is far from being a disease in extinction in Brazil. Despite the low anti-Delta prevalence in nonendemic regions, this infection persists in two states (Acre and Amazonas) in the north of the country, indicating that a continuous epidemiological surveillance program should be implemented in all Brazilian regions.