

Comparative immunogenicity of 2 recombinant hepatitis B vaccines (GeneVac-B and Engerix-B) in adult patients with chronic renal failure.

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Abstract

BACKGROUND Hepatitis B virus infection is often fatal or results in a carrier state with uremia. Vaccination protects against infection, but immune response may remain low. We aimed to study immune responses to 2 recombinant hepatitis B vaccines (Engerix-B and GeneVac-B) in patients with end-stage chronic renal failure.

METHODS Patients initially negative for hepatitis B (HB) surface antigen (HBsAg), and with core antibody (anti-HBc) and nonprotective anti-HBs titers (<100 mIU/mL) were selected. Four doses of 40 microng of either vaccine were administered intramuscularly, further doses being given 1, 2 and 6 months after the first dose. Seroconversion and seroprotection were defined as anti-HBs level above 10 mIU/mL and 100 mIU/mL, respectively.

RESULTS A total of 11 and 9 subjects receiving GeneVac-B and Engerix-B, respectively, completed the protocol. Seroconversion was achieved in 100% for both vaccines. Seroprotection occurred in 78% and 82% of the Engerix-B and the GeneVac-B recipients, respectively. Geometric mean titers 1 month after the fourth dose were 274 mIU/mL (95% confidence interval [95% CI], 71-1,057 mIU/mL) and 322 mIU/mL (95% CI, 142-730 mIU/mL), respectively.

CONCLUSIONS Both vaccines are highly immunogenic in renal failure and did not show significant differences between each other.