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A Comparison of Entecavir and Lamivudine for HBeAg-Positive Chronic Hepatitis B

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ABSTRACT

Background Entecavir is a potent and selective guanosine analogue with significant activity against hepatitis B virus (HBV).

Methods In this phase 3, double-blind trial, we randomly assigned 715 patients with hepatitis B e antigen (HBeAg)–positive chronic hepatitis B who had not previously received a nucleoside analogue to receive either 0.5 mg of entecavir or 100 mg of lamivudine once daily for a minimum of 52 weeks. The primary efficacy end point was histologic improvement (a decrease by at least two points in the Knodell necroinflammatory score, without worsening of fibrosis) at week 48. Secondary end points included a reduction in the serum HBV DNA level, HBeAg loss and seroconversion, and normalization of the alanine aminotransferase level.

Results Histologic improvement after 48 weeks occurred in 226 of 314 patients in the entecavir group (72 percent) and 195 of 314 patients in the lamivudine group (62 percent, P=0.009). More patients in the entecavir group than in the lamivudine group had undetectable serum HBV DNA levels according to a polymerase-chain-reaction assay (67 percent vs. 36 percent, P<0.001) and normalization of alanine aminotransferase levels (68 percent vs. 60 percent, P=0.02). The mean reduction in serum HBV DNA from baseline to week 48 was greater with entecavir than with lamivudine (6.9 vs. 5.4 log [on a base-10 scale] copies per milliliter, P<0.001). HBeAg seroconversion occurred in 21 percent of entecavir-treated patients and 18 percent of those treated with lamivudine (P=0.33). No viral resistance to entecavir was detected. Safety was similar in the two groups.

Conclusions Among patients with HBeAg-positive chronic hepatitis B, the rates of histologic, virologic, and biochemical improvement are significantly higher with entecavir than with lamivudine. The safety profile of the two agents is similar, and there is no evidence of viral resistance to entecavir. ClinicalTrials.gov number, NCT00035633

Source Information

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