Use of ALLGIO probe assays for detection of HBV resistance to adefovir in patients with chronic hepatitis B, Kerman, Iran.

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Source
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Abstract
Hepatitis B virus (HBV) infection is contagious with transmission vertically or horizontally by blood products and body secretions. Over 50% of Iranian carriers contracted the infection prenatally, making this the most likely route of transmission of HBV in Iran. To evaluate the resistance to adefovir (ADV) therapy in patients with chronic hepatitis B infection, a study was conducted on 70 patients (63 males and 7 females), who had received in first line lamivudine and second line adefovir. All were tested for the presence of hepatitis B surface antigen (HBsAg), hepatitis B envelope antigen (HBeAg), serum alanine amino transferase (ALT) level and HBV DNA load before and after treatment with ADV. In all samples, resistance to lamivudine and ADV was tested with real time PCR. Among seventy patients with chronic hepatitis B infection, 18 (25.7%) were resistant to LAM and 8 (11.4%) were resistant to ADV. Only one patient was negative for the presence of HBS-Ag (5.6%) and two were negative for HBe-Ag (11.1%). In this study we used a new method (ALLGIO probe assay) that has high sensitivity in detection of adefovir resistance mutants, which we recommend to other researchers. Mutant strains of the YMDD motif of HBV polymerase can be found in some patients under treatment with lamivudine and ADV. ADV has been demonstrated to be efficient in patients with lamivudine resistant HBV.

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