

عنوان مقاله:

Evaluation of Lamivudine Resistance Mutations in HBV/HIV Co-infected Patients

محل انتشار:

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خلاصه مقاله:

Background and Objective: The drug resistance mutations are key elements in the failure of long-term treatment of Hepatitis B virus (HBV) and human immunodeficiency virus (HIV) infections. The mutation in the YMDD motif in the P gene of HBV is the most critical factor in antiviral drug (especially lamivudine) resistance. This study aimed to assess the YMDD motif and other polymerase gene mutations in individuals with HBV/HIV coinfection. **Materials and Methods:** All enrolled patients were under lamivudine treatment. Blood samples were collected from 37 HBV/HIV-positive patients, and DNA was extracted. The P gene was amplified by the PCR method with appropriate primers. The PCR products for detecting mutations in the P gene were sent to the MacroGen. To investigate the P gene mutations, the obtained sequences were compared with the polymerase gene of the HBV standard sequence in the GeneBank (accession number AB033559). **Results:** The mean age of the patients was 34.1 ± 5.7 years, of which 59.5% were male, and 40.5% were female. Of all patients, 56% were drug abusers, 35% had risky sexual behavior, 56% had prison history, and 33% had addicted wives. The 37 extracted samples were sequenced successfully. Among the studied samples ($n = 37$), 28 patients had simultaneous mutations of YIDD and FLMAQ, 1 patient had YINN and FLIPH and 1 patient had YIDD and FSLAQ. **Conclusion:** In summary, drug-resistant variants were detectable in most coinfecting patients with chronic Hepatitis B (CHB) and HIV. As a result of mutations, therapeutic strategies sometimes are not effective. Therefore, recognition and monitoring of drug resistance mutations are critical.

کلمات کلیدی:

Coinfection, HBV, HIV, Lamivudine, Mutation, P gene, HBV, HIV
ژن P، عفونت همزمان، جهش، ژن

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