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MEETING ABSTRACT Open Access

Circulating apo 2L levels decreased in hepatitis C with the pegilated interferon-2 alpha treatment

Ata Nevzat Yalcin[1*], Arzu Didem Yalcin[2], Betul Celik[3], Sukran Kose[4], Ayhan Cekin[5], Derya Seyman[6], Saadet Gumuslu[7]

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Background

Chronic hepatitis C (HCV) infects approximately 170 million people and causes more than 350 000 deaths every year. Information regarding pathogenetic mechanism of acute hepatitis C infection is limited. Following innate immune activation, cellular immunity, including natural killer (NK) cell activation and antigen-specific CD8 cell proliferation occurs. CD8+ T lymphocytes directly kill infected cells via direct cell-cell contact, and release antiviral cytokines (e.g. IFN, TNF)

Methods

Eleven HCV-treatment naive HCV infected patients were treated with weight-based ribavirin daily in addition to either weekly pegIFN alfa-2b at 1.5 ug/kg, weekly pegIFN alfa-2a, or albinterferon alfa-2b at 900mcg every 2 weeks. All patients gave written informed consent approved by the Institutional Review Board prior to enrollment in the studies. Intensive serum monitoring was completed at study visits day 0 (pretreatment), weeks 4, 6 and 12.

Results

In this present study, we aimed to investigate the relationship between IFN treatment response, HCV viral load and sApo 2L levels. Eleven HCV-treatment naive HCV infected patients were treated with pegIFN alfa-2a. Intensive serum circulating Apo 2L levels were monitered at study visits day 0 (pretreatment), weeks 4, 6 and 12.HCV-RNA and sApo 2L levels decreased gradually with PegIF-α 2 treatment and the differences were significant between day 0 and 4^{th} week ($p=0.001$, $p<0.005$ and $p=0.01$, $p<0.005$ respectively); between day 0 and 12th week ($p=0.001$, $p<0.005$ and $p=0.001$, $p<0.000$ respectively); between 6th week and 12th week ($p=0.01$, $p<0.05$ and $p=0.01$, $p<0.05$ respectively).

Conclusions

We suggest that, decreased level of circulating Apo 2L may reflect its increased binding to its ligand expressed on hepatocyte or lymphocyte under the influence of PegIFN treatment.

Authors' details
[1]Department of Infectious Diseases and Clinical Microbiology, Akdeniz University, 07070, Antalya, Turkey. [2]Internal Medicine, Allergy and Clinical Immunology, Genomics Research Center, Academia Sinica,11529, Taipei, Taiwan. [3]Department of Laboratory Medicine and Pathology, Mayo Clinic in Jacksonville, USA. [4]Department of Infectious Diseases and Clinical Microbiology, Allergy and Clinical Immunology Unit, Tepecik Education and Research Hospital. Izmir, Turkey. [5]Department of Gastroenterology, Antalya Training Hospital, Antalya, Turkey. [6]Department of Infectious Diseases and Clinical Microbiology, Antalya Education and Research Hospital, Turkey. [7]Department of Medical Biochemistry, Faculty of Medicine, Akdeniz University, 07070, Antalya, Turkey.

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[1]Department of Infectious Diseases and Clinical Microbiology, Akdeniz University, 07070, Antalya, Turkey
Full list of author information is available at the end of the article