tion, all with p < 0.01. In CHB patients, MIF, TGF-β, IL-17 and ALT levels were positively correlated (r = 0.725, 0.687, 0.831; p < 0.01, 0.05, 0.01, respectively), IL-10 and ALT was negatively correlated (r = -0.562, p = <0.05). .Multivariate analysis showed that the levels of increment of MIF, TGF-β and IL-17 were associated with the increment of HBV DNA load and severity of liver disease.

Conclusion: There is a marked correlation between the concentration of MIF, TGF-β and IL-17 and the severity of liver disease and viral replication. Increased serum levels of MIF, TGF-β and IL-17 correlate positively with the severity of liver disease and active viral replication in chronic HBV infection.

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Decline of hepatitis B virus load correlate with increase of Th1/Th2 immunity in chronic hepatitis B patients during long-term treatment with entecavir

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Background: Chronic hepatitis B is a serious health problem worldwide with a substantial minority of patients experiencing premature death due to end-stage liver disease and/or hepatocelluar carcinoma. Antiviral therapy may help prevent complications of chronic hepatitis B, and seven agents are currently approved in many countries. Of these agents, five are nucleos(t)ide analogs that all have a risk of antiviral drug resistance with long-term use. Entecavir treatment has significantly improved the outcome of chronic hepatitis B virus (HBV) infection and with a lowest resistance risk. However, it remains largely unknown how immune system responds to the treatment. The aim of the present study is to investigate dynamic fluctuations of serum viral load and Th1/Th2 immunity of chronic hepatitis B patients and their correlation during long-term entecavir therapy.

Methods & Materials: Sixty-two patients received entecavir 0.5 mg/d therapy. Serum HBVDNA load was measured by Real-Time-PCR, and the levels of cytokines and T helper 1 (Th1) and 2 (Th2) cytokine producing T-cells by flow cytometry during 260 weeks of the treatment. Multilevel modelling was used to analyse the relationship between these variables.

Results: Of the 62 patients, all HBeAg positive and with detectable HBVDNA, the majority (85.6%) had serum levels of HBVDNA over 10^7 copies per milliliter. Th1/Th2 cytokines producing T-cells were significantly lower in chronic hepatitis B patients as compared with normal individuals. HBV viral load dropped sharply during the first two weeks. In 31 and 48 patients, the level became undetectable from week 24 and 48, respectively. Using pre-therapy level as the reference, a significant increase in Th1/Th2 cytokines producing T-cells and serum cytokine levels were found from week 12. These parameters and Th1/Th2 balance steadlly improved throughout the 260 weeks. Multilevel analyses showed that the level of decrement of HBVDNA load was associated with the increment of Th1/Th2 activities only in the later period (12-260 week). In contrast, Th1/Th2 cytokines producing T-cells remained lower in one patient detected with entecavir resistant HBV mutation.

Conclusion: Decline of HBVDNA load correlate with increase of Th1/Th2 immunity in chronic hepatitis B patients during a long-term treatment with entecavir.

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Clinical characteristics and virological responses to pegylated interferon plus ribavirin combination therapy in the hepatitis B and C virus coinfected patients

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Background: Hepatitis B virus (HBV) and hepatitis C virus (HCV) infections are among the most common causes of advanced chronic liver disease worldwide. HBV/HCV co-infection is not uncommon and the patients with HBV/HCV co-infection have an increased risk of cirrhosis, hepatocellular carcinoma (HCC), and even death. The combination of pegylated interferon (Peg-IFN) plus ribavirin (RBV) is the current standard of care for naïve chronic hepatitis C patients, achieving a high sustained virological response (SVR) rate. The aim of present study is to explore the clinical characteristics of HBV/HCV