(−597) polymorphisms and IL-6 levels with hepatitis B virus related HCC risk in Indian population.
Methods: Five groups of subjects were enrolled viz. control (n = 100), HBV-carriers (n = 60), chronic active HBV (n = 60), HBV-cirrhotic (n = 60) and HBV-related HCC (n = 53). PCR-RFLP was performed to study various polymorphic forms of *IL-6* and levels in PBMCs were estimated by ELISA. Genotype distributions were compared using chi square analysis and the odds ratios (ORs) and 95% CI were calculated to express the relative risk.
Results: In *IL-6* (−*572*), the GC genotype, was in negative association ($p < 0.001$) with HCC, among controls, while it was a significant risk factor ($p < 0.001$) for the same, among HBV-carriers. In contrast, the CC genotype was a risk factor ($p < 0.001$) for progression the disease to cirrhosis among controls and HBV-carriers (OR: 3.2 and 4.0 respectively). In case of *IL-6*(−597), GA genotype significantly increased ($p < 0.001$) HCC risk, both among controls and HBV-carriers. The IL-6 levels were found to be significantly lower in all the diseased groups, with reference to controls. However, levels were significantly higher in cirrhotic group when compared with the carrier and active hepatitis group. Moreover, in both *IL-6*(−572) and (−597) heterozygotes were found to have lower IL-6 levels as compared to those having wild genotypes.
Conclusions: Polymorphic forms of *IL-6* and basal IL-6 levels share a strong association with HBV-HCC risk in Indian population and thus should be further evaluated as candidate genes to determine individual susceptibility for the same.

PP-110 Chinese herbal medicines (CHM) personalized therapy for HBeAg(+) chronic hepatitis B Chinese patient with suboptimal response to nucleoside and modeling

Y.G. Ye[1]*, L.Q. Min[2]. [1]*Traditional Chinese Internal Medicine Key Laboratory of China Education Ministry, Dongzhimen Hospital, Beijing University of Chinese Medicine, Beijing 100700, P. R. China,* [2]*Mathematics and Physics School, University of Science and Technology Beijing, Beijing, 100083, China*

Objectives: Evaluate the efficacy of Tiaoganjanpihexue (a traditional Chinease medicine term) CHM-prescription for treating a 31-year-old female HBeAg(+) chronic hepatitis B Chinese patient with suboptimal response to Adefovir Dipivoxil (AD) for 63 weeks switch to AD + lamivudine (LVD) for 18 weeks, and to AD for 45 weeks, and to Telbivudine (TEB) for 24 weeks. Modeling the dynamics of the anti-HBV infection treatments.
Methods: During 2007−2010, the patient was treated by AD, AD+LVD, AD and TEB continuously. Her baseline characteristics were HBV DNA = 3.48×10^7 cps/ml, ALT = 103.2 I/U, HBeAg = 1.400 S/CO, Anti-HBe = 0.213S/CO and those at week 150 were HBV DNA <1000 cps/ml, ALT <14 I/U (over 100 weeks), HBeAg = 3.840S/CO, Anti-HBe = 1.061S/CO. After 16 weeks' stopping treatment, her HBV DNA was returned to 6.8×10^3 and other characteristics were almost the same as those at week 150. Using the CHM Tiaoganjanpihexue (consisting of 21 ingredients) treated the patient, two times daily and decoction after meals.
Results: After 4 weeks' treatment her HBeAg and anti-HBe reduced to 0.850S/CO and 0.528S/CO. Following 21 weeks' addtional treatments, her HBeAg had been kept seroconversion and HBV DNA reduced to 1.40×10^3 cps/ml. During the 25 week's Tiaoganjanpihexue therapy, her mean ALT = 19.03 I/U. A mathematical new model is introduced to model the dynamics of the anti-HBV infection treatment. The simulated curve is in good agreement with the clinic tested patient's HBV DNA.
Conclusions: The CHM Tiaoganjanpihexue has a specific function that is able to activate patient's immune function to suppress HBV directly but not injure the patient's hepatocytes.
Acknowledgments: This work is jointly supported by the 11th 5-Year Plan Key Research Project of China (No. 2008ZX10500-006) and the NNSF of China (No.61074192).

PP-111 Hepatitis B virus (HBV) subgenotypes and mutations in core promoter and precore/core and their clinical implications in Xinjiang Uighur patients

X.F. Sun[1]*, Y.X. Zhang[1], S.J. Wen[2], J.L. Hou[2], H. Liu[1], Z.H. Wang[2]. [1]*First Affiliated Hospital, Xinjiang Medical University,* [2]*Nanfang Hospital, Nanfang Medical University, China*

Objective: To detecte HBV subtypes, mutation of core promoter and precore/core and clinical features among Xinjiang Uygur patients with chronic HBV infection.
Methods: PCR-RFLP was used to detect the subtypes, core promoter and precore/core of HBV in 109 Uygur patients with chronic HBV, and analyses of the relationship between mutation and clinical features.
Results: In 109 Uygur patients with chronic HBV group, there were 9 cases with HBV genotype B infection who were HBV Ba subtype, 50 cases with HBV genotype C and 27 cases with C1 subtype i, 23 cases with C2 subtype, 32 cases with C/D recombinant i, 18 cases with HBV genotype D infection. According to the progress of the HBV infection, G1896A mutation in HBV precore or core region had no significant difference in chronic hepatitis B and cirrhosis, but A1762T/G1764A mutation in the HBV subtype C1 and C2 and i Ba have significantly increased in cirrhosis.we fund that A1762T/G1764A mutation in HBV C/D recombinant infection is low.
Conclusion: Uygur patients with CHB have more HBV C/D recombinant, and C1 subtype infection. A1762T/G1764A mutation in the HBV subtype C1 and C2 subtypes have significantly increased.

PP-112 Genotyping of hepatitis B virus in 280 patients infected with hepatitis B Virus and its clinical significance

W.D. Li[1]*, J.L. Chen[1], C.Q. Li[1]. [1]*Beijing DiTan Hospital, Capital Medical University, China*

Objective: Previous studies showed that HBV genotype correlated with HBV transmission, clinical disease spectra, progression, prognosis, antiviral effect, etc. This study is aimed to evaluate the clinical significance of HBV genotype.
Methods: HBV genotypes were analyzed in 280 patients infected with hepatitis B virus. Liver function, HBV markers including PreS1, HBV DNA levels and T cell subsets of these patients were also measured.
Results: HBV genotyping had a geographical distribution. Genotype C was mainly prevalent in patients from north china while Genotype B from south china. In the progression of asymptomatic carrier or acute hepatitis to chronic hepatitis, liver cirrhosis and liver cancer, genotype C increased while genotype B decreased. Genotype C and genotype BC showed lower levels in prealbum (Pre-A) and album (ALB) and lower ratio of album to globulin (A/G) than genotype B ($P = 0.02$, $P = 0.03$, $P = 0.01$ and $P = 0.005$, $P = 0.001$, $P < 0.001$, respectively), but showed higher levels in globulin (GLO) than genotype B ($P < 0.001$ and $P = 0.01$, respectively). Genotype C showed lower levels in cholinesterase (CHE) than genotype B ($P = 0.007$). There

was no significant difference among HBV genotypes in the levels of alanine transferase (ALT), aspartate transferase (AST), total bilirubin (TBIL), gamma-glutamyl transferase (GGT), alkaline phosphatase (ALP), total bile acid (TBA). The positive rates of PreS1 antigen of genotype C and genotype BC were high (72.3% and 67.3%, respectively) while that of genotype B was low (29%). On the contrary, genotype C (24.6%) and genotype BC (26.1%) indicated lower negative rates of PreS1 antigen than genotype B (67.1%).
Conlusions: HBV genotypes had a geographical distribution. Genotype C showed more serious liver dysfunction than genotype B and was easier to develop into chronic hepatitis, liver cirrhosis and liver cancer. Further study was needed to know why genotype C has high PreS1 positive rate while genotype B has high PreS1 negative rate.

PP-113 Clinical research on myocardial injury of chronic hepatitis B virus infection patients

Q. Li[1], Z.R. Deng[1], X.B. Lu[1]*, Y.-X. Zhang[1]. *[1]Department of Infectious Diseases, First Affiliated Hospital, Xinjiang Medical University, China*

Objective: To study the relation and clinical significance between chronic HBV infection and myocardial injury.
Methods: To retrospective analyze the clinical date of 93 chronic HBV infection patients from January 2010 to February 2011 in Xinjiang two centers.
Results: Between the four groups of chronic hepatitis B, chronic severe hepatitis B, the compensatory stage of hepatitis B liver cirrhosis, the decompensatory stage of hepatitis B liver cirrhosis: (1) The patients had elevated enzymes, the abnormally high rate of chronic hepatitis B severe hepatitis group and hepatitis B cirrhosis group is higher than other two groups, but the difference was not statistically significant ($P > 0.05$). (2) In 93 patients, the electrocardiograms of 7 patients were abnormally, accounting for 7.53%. They are 2 cases of sinus bradycardia, 1 case of anteroseptal myocardial disease to be ranked, 1 case of anteroseptal myocardial ischemia, 1 case of left branch block and 1 case of incomplete left bundle branch block. Before 6 cases were from chronic hepatitis B group, the last one case from hepatitis B cirrhosis group. (3) Among 93 patients, 52 patients had abnormal manifestation of cardiac color Doppler ultrasound, accounting for 55.91%. But the abnormal manifestation had different abnormalities during the patients in different groups, and most patients had multiple abnormalities. Compare other three groups, the chronic hepatitis B group had higher incidence rate of mitral and tricuspid regurgitation detected in the systolic. the chronic hepatitis B group had statistical significant with chronic severe hepatitis B group ($P < 0.05$), and no statistical significant with hepatitis B liver cirrhosis group ($P > 0.05$).
Conclusion: Chronic HBV infection can occur in myocardial injury, can be expressed as abnormal manifestation in myocardial enzymes, electrocardiogram, cardiac color Doppler ultrasound, may lead to HBV-related cardiomyopathy. If the chronic HBV infected patients combined of myocardial injury, may be appropriate to relax the anti-viral indications, meanwhile give protect myocardium treatment actively to delay disease progression.

PP-114 Clinicopathologic characteristics of intrahepatic cholangiocarcinoma patients with hepatitis B virus infection

L.-Y. Tao[1,2]*, X.-D. He[1], Q. Xu[2]. *[1]Department of General Surgery, Peking Union Medical College Hospital, Chinese Academy of Medical Sciences & Peking Union Medical College, Beijing 100730, China, [2]Department of Surgery, Beijing Charity Hospital, China Rehabilitation Research Center, Beijing 100068 China*

Aim: To identify the role of HBV in the pathogenesis and prognosis of intrahepatic cholangiocarcinoma (ICC) by a retrospective study.
Methods: Ninety-seven ICC patients (59 males and 38 females) were divided into three groups: Group I: HBsAg-positive and anti-HBc-positive (n = 26); Group II: HBsAg-negative and anti-HBc-positive (n = 50); Group III: HBsAg-negative and anti-HBc-negative (n = 21). The clinicopathologic features were compared and analyzed.
Results: Compared with Group III, the mean age ($P = 0.018$) and the positive rate of CA19–9 (>37U/ml) ($P = 0.000$) of Group I were significantly lower, while the positive rate of AFP (>25 ng/ml) ($P = 0.012$), PT value ($P = 0.030$), hepatic cirrhosis ($P = 0.001$) and the account of poor differentiation ($P = 0.028$) were significantly higher. In addition, patients of Group I had worsen outcome compared to Group II and Group III ($P = 0.010$).
Conclusion: ICC patients infected by HBV tend to develop tumor at earlier age, be AFP positivea nd CA19–9 negative, get hepatic cirrhosis, have higher PT value, poor differentiation and worsen outcome. HBV-associated ICC and HCC may hold common disease process for carcinogenesis.

PP-115 Alteration of Treg/Th17 ratio in patients with HBV infection: serum cytokine profile and peripheral cell population

X.S. Liang[1]*, C.Z. Li[1], Y. Zhou[1]. *[1]Shanghai Changhai Hospital, China*

Background and Aim: Cellular immune mechanisms involving T cell reaction are considered to be significantly involved in the pathogenesis of hepatitis B virus (HBV) infection. Many studies have independently revealed that Treg cells and Th17 cells played antagonism role in chronic HBV infection, and imbalance between Treg and Th17 exist in chronic HBV infection. These prompted us to investigate whether the Treg/Th17 balance altered during HBV infection and, if it did, what cytokine circumstances could contribute to this change.
Methods: The serum concentration of Treg/Th17 differentiation-related cytokines in 18 patients with chronic hepatitis B (CHB), 17 patients with acute-on-chronic hepatitis B liver failure (ACHBLF), 10 patients with acute hepatitis B (AHB), 12 asymptomatic HBV carriers, and 10 normal controls was measured by enzyme-linked immunosorbent assay (ELISA). Peripheral population of Th17 and Treg cells was analyzed by flow cytometric assay.
Results: Compared with normal controls, patients with acute liver inflammation had environments prone to Th17 cells differentiation, and accompanied with higher frequency of Th17 cells and higher level of IL-17A. The ratios of Tregs to Th17 cells in CHB and ACHBLF patients were significantly lower than those in normal controls and asymptomatic HBV carriers. The frequency of Th17 cells or the serum IL-17A levels were significantly correlated with liver injury and HBV load in patients with HBV infection. Furthermore, the Treg/Th17 ratio was significantly correlated with liver injury and HBV load in patients with HBV infection, too.