Autoimmune hepatitis complicated with Sjögren’s syndrome: a case report

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Introduction: Sjögren syndrome (SS) is a chronic autoimmune disorder that may affects salivary, lacrimal glands, liver, blood, joints and others with diverse clinical manifestations. We presented a case of autoimmune hepatitis complicated with SS, which mainly presented recurrent abnormal liver enzyme tests of unknown origin.

Case description: A 45-year-old woman had a 5-month history of recurrent weakness and anorexia, and 15-day history of jaundice. Physical examination revealed moderate jaundice. The events of hepatocellular carcinoma cells (HCC) correlated to infection of hepatitis virus. PTEN/AKT signal pathway plays a central role in the proliferation of the tumor cells. The present investigation purpose to explore alpha-fetoprotein (AFP) via inhibited the activity of PTEN in human hepatoma Bel 7402 cells.

Objective: The immunostaining of programmed death 1 (PD-1) and its ligands in liver tissues of patients with hepatitis and hepatocellular carcinoma.

Methods: Western Blotting was utilized to detecting the expression of PTEN and the phosphorylation of protein kinase B (AKT) in Bel 7402 cells. AFP interacted with PTEN was analyzed by fluorescence resonance energy transfer (FRET) of FITC (labeled PTEN) and TRITC (labeled AFP); Short small RNA interfering (RNAi) was applied to block the expression of AFP.

Results: 15 randomized trials randomizing 1054 patients were analyzed. Naloxone has significant effect on improvement of hepatic encephalopathy (relative risk 1.46; 95 percent CI 1.27 to 1.67; P = 0.0005). This comparison showed significantly statistical heterogeneity (P = 0.10, and I² = 44.93). Subgroup analysis showed that naloxone administered both by injected and infusion route could be effective (relative risk 1.34; 95 percent CI 1.17 to 1.53; P = 0.0001) and there was significant effect in trials by infusion route (relative risk 1.42; 95 percent CI 1.19 to 1.69; P = 0.0001). Adverse effects were observed in only 8 patients treated with naloxone.

Conclusion: Naloxone could get patients with hepatic encephalopathy improved, however because of the studies were of generally poor quality, we are unable to make firm conclusions. It is possible that further investigation in well-designed trials may help confirm our results.

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Clinical analysis of chronic liver failure and decompensated cirrhosis in patients with blood gas analysis

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Objective: To investigate clinical significance and pathogenesis of change in blood gas analysis on chronic liver failure and decompensated cirrhosis.

Methods: The blood gas analysis data of 37 cases of chronic liver failure and decompensated cirrhosis were analyzed retrospectively.

Results: 36 cases of patients with acid-base imbalance, alkalosis-based type of acid-base imbalance is common, respiratory alkalosis, respiratory alkalosis combined metabolic acidosis and respiratory alkalosis combined metabolic alkalosis have a higher proportion, the two groups of various types of acid-base imbalance in blood gas analysis indexes have no significant (P>0.05), 10 cases of patients with hypoxemia.

Conclusion: Chronic liver failure and cirrhosis patients affect acid-base imbalance of the body and the existence of hypoxemia, and have the similar Mechanism. Dynamic monitoring of blood gas analysis and timely symptomatic treatment of such patients have a clinical significance.

Poster Presentation – Fungal Infections

The inducible efficacy of IFN-γ provoked by interleukin-12 and/or low dose interleukin-2 in invasive pulmonary aspergillosis (IPA) mice model

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Background: Invasive Pulmonary Aspergillosis (IPA) is an intracellular opportunistic fungus causing invasive pulmonary mycosis, characterized by hyphal invasion and destruction of pulmonary tissue. Little is known about the expression of IFN-γ in the serum and pulmonary tissue in IPA infection, which induced by the combination of IL-12 and IL-2 in IPA infection. The inducible efficacy of IFN-γ and inhibition effect for Aspergillus fumigatus infection in the pulmonary by IL-12 and/or IL-2 was assessed in the study.

Methods: The animal model of pulmonary aspergillosis infection was prepared; Real-time RT-PCR assays for specifically quantify mouse IFN-γ transcripts, and an assay for Lung CFU (Colony-forming unit). Histopathological sections were observed in the different interleukin treatment groups respectively.

Results: Our results showed that the inhibition of A. fumigatus from lungs of immunosuppressed mice is correlated with Th1 cytokines, Interleukin-12 was proven to enhance the IFN-γ mRNA local expression in the pulmonary tissue, but it did not dramatically increase and/or decrease the serum level of IFN-γ. Moreover, Th1 cytokines (IL-12 and/or IL-2) were observed to strongly correlate with the inhibition of pathological colonies.

Conclusion: The accumulation of inflammatory mononuclear leukocytes at sites of infection is considered to be regulated by the local production and secretion of IFN-γ, and the sera levels of IFN-γ did not be used as potential indicator for therapeutic monitoring.

Cryptococcal meningitis in HIV-negative patients

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Objective: To describe the clinical characteristics, mycological profile, treatment, and outcomes of cryptococcal meningitis in HIV-negative patients.

Methods: HIV-negative adult patients with positive cerebrospinal fluid culture for Cryptococcus neoformans who attended Changzheng Hospital between 1997 and 2008 were retrospectively reviewed.

Result: During the 12 year review period, 62 HIV-negative patients with cryptococcal meningitis were identified. Thirty-four patients (55%) had associated underlying conditions and twenty had bird-droppings contact history. The most common associated conditions included immunosuppressive drug treatment, connective tissue disease, and diabetes mellitus. Intravenous Amphotericin B and oral 5-flucytosine for at least 6 weeks with continued oral fluconazole or itraconazole for at least 10 weeks showed to be effective treatment choice. During the treatment, mycological test result showed that CSF culture result turned to be negative in all patients after 2 weeks of treatment, and CSF antigen test showed 100% positive rate and decreased slowly and unrealistically during and after treatment. The overall mortality rate was very low.

Conclusion: Cryptococcal meningitis is not rare in HIV-negative patients. Antifungal therapy with comparatively long periods in these patients may improve clinical outcomes, which was confirmed by mortality rate and mycological test result.

Helicobacter pylori infection in patients with digestive complaints in northeastern Iran

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Background: Helicobacter pylori (HP) infection is the most common gastrointestinal bacterial disease worldwide. Although culture method is standard method for diagnosis, urea broth test (UBT) is non-invasive method with high specificity and sensitivity, relatively. The aim of this study is non-invasive detection of H. pylori infection prevalence in patients with digestive discomforts using UBT in Mashhad located in Iran northeastern.

Methods: The study involved 814 patients (467 women and 347 men, 17–80 years) from January 2007 to November 2008, who had symptoms. The 14C-UBT was performed by ingestion of a solution of labeled urea by patient. The labeled CO2 is absorbed by the blood and exhaled in expired air. The expired air was collected by the Heliprobe breath card (a color change indicator that a sufficient volume of CO2 had been collected) and analyzed (Noster System, Stockholm, Sweden).

Results: 698 (85.75%) of 814 studied patients were positive and 116 (14.25%) were negative. 403 (86.30%) of women and 295 (85.01%) of men had HP and no significant difference was observed between two groups (p<0.05). Positive cases were clas-