

PP-061 Magnetic resonance images based analysis of Chinese herb plus adefovir anti-hepatitis B infection therapy

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Background and Objectives: A twenty-five year HBV persistent infected chronic HBV (CHB) patient with mild cirrhosis had baseline characteristics: ALT=45.7U/L, HBVDNA=2.7e6 cp/mL, HBeAg=450.57S/CO. He first received Chinese herbs (CB consisting of 15–23 ingredients) treatment for 23 weeks when his HBeAg was reduced to 4.1 S/CO and HBVDNA=4.1e6 cp/mL. Then switched CB + Adefovir (AD) therapy for additional 23 weeks. At the endpoint, his HBVDNA had been less than 1000cp/ml for 11 weeks and ALT been normal for 22 weeks, his HBeAg=1.55S/CO, Anti-HBe=0.96S/CO. The objective is to compare the CHB patient's magnetic resonance images (MRIs) with one normal individual and one serious cirrhosis CHB patient's MRIs to evaluate whether the combination therapy results in the patient's histologic improvement.

Method: Select 5 sets of MRIs. Set 1 are the normal person's MRIs. Set 2 are the serious cirrhosis CHB patient's MRIs. Sets 4–6 are the CHB patient's MRIs taken at weeks 2, 20 and 46. Choose 18 T1-weighted images from each of the 5 set MRIs. Select rectangles with 81×51 pixels in the left liver for each image. Using a classification scheme (see L. Min, Y. Ye, Lecture Notes Computer Sciences, 5264 Part III (2008): 439–448) analyzes the 90 MRIs.

Results: For set 1, there are average 96% pixels in the normal gray level interval. For set 2, there are average 34% pixels in the normal gray level interval. For sets 3–5, there are average 72%, 92% and 97% pixels in the normal gray level interval.

Conclusion: The combination therapy in the CHB patient results in durable virologic suppression, continued histologic improvement of cirrhosis.

Acknowledgment: This project is supported by the 11–5 Key special project of China (No. 2008ZX10005–06).

PP-062 Role of the cellular immunology function test in preventing and treating the fungal infection following liver transplantation

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Objective: To explore the role of monitoring the cellular immunology function in preventing and treating the fungal infection in the recipients of liver transplantation.

Method: 679 deceased liver transplantations (from Jan 2004 to Jan 2010) were retrospectively studied. All the cases were separated into 3 groups according to the treating regimens based on the evaluation of the immunology function test. And the infection, mortality and acute rejection rates were analyzed.

Results: The infection rate of each group was 28.9%, 21.2%, 19.4%, respectively ($P < 0.05$) while the morbidity rate being 16.7%, 12.5%, 3.8% ($P > 0.05$), and the acute rejection rate is 28.4%, 17.2%, 13.4% ($P < 0.001$), respectively.

Conclusions: The function test of cellular immunology could be instructive in preventing and treating the fungal infection after liver transplantation.

PP-063 First blood culture isolation of *Cryptococcus neoformans* in the National Cancer Institute of Sri Lanka (NCISL)

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Introduction: Cryptococcosis is an opportunistic infection reported in immunocompromised hosts as well as in normal hosts. Cryptococemia occurs during severe immunosuppression and strongly associated with corticosteroid therapy, especially with recent increase in dose and with high burden of yeast. Meningitis is common with cryptococemia but not invariably present.

Case description: A 23 year old university student who completed chemotherapy for Acute Lymphoblastic Leukaemia on follow up got admitted to a Teaching Hospital with a history of altered consciousness and bulbar symptoms of two weeks and fever of 05 days duration. Lumbar puncture (LP) performed revealed Cerebro-spinal Fluid (CSF) proteins of 215mg/dl with 35 polymorphs and 105 lymphocytes. Bacterial, fungal and mycobacterial cultures of CSF revealed no pathogens. Viral antibodies for Japanese B encephalitis were negative. Magnetic Resonance Imaging (MRI) scan revealed multiple enhancing lesions in bilateral basal ganglia and periventricular white matter and reported as they are due to leukaemic deposits or multiple infective foci in an immuno-compromised host. Broad-spectrum antibiotics and acyclovir IV were commenced. Total WBC count was 4,300/mm³ with 78% neutrophils and 18% lymphocytes. Following transfer to the National Cancer Institute of Sri Lanka, bone marrow trephine biopsy was performed and started on re-induction chemotherapy and high dose corticosteroid therapy. LP revealed slightly turbid CSF with a cell count of 20 /cumm and high proteins. Bone marrow was in morphological remission. Patient became febrile and developed multiple neurological signs. After taking a BACTEC blood culture ceftazidime and amikacin were commenced. Within few hours patient passed away. Blood culture yielded *Cryptococcus neoformans* the next day.

This case shows that high level of clinical suspicion of cryptococcal infections in immuno-compromised patients is important for appropriate and timely antifungal therapy which are essential for successful management and recovery.

PP-064 Nosocomial candidaemia at the National Cancer Institute of Sri Lanka (NCISL) – A three year prospective study

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Objectives:

1. To determine the incidence of candidaemia
2. To determine the prevalent *Candida* spp. and their antifungal susceptibilities

Method: A prospective study was carried out for three years from January 2007. Fungal blood cultures collected from suspected candidaemia in patients with haematological malignancies, neutropenia and post surgery were processed according to standard procedures. Speciation of isolates and antifungal sensitivities were performed at the Medical Research Institute of Sri Lanka.

Results: Incidence of candidaemia was 1.28 per 1000 admissions in three years. In three years, *Candida tropicalis* 19/515 (3.68%), 32/828 (3.86%) and 32/825 (3.88%), *Candida*