PP-059  Rifaximin salvage therapy for metronidazole-resistant Clostridium difficile infection – a prospective pilot trial

P. Patrick Basu1,2, Amreen Dinani1, Krishna Rayapudi3, Tommy Pacana3, Niraj James1. 1New York Hospital Queens, Flushing, New York, USA; 2Columbia University College of Physicians and Surgeons, New York, New York, USA; 3Forest Hills Hospital, Forest Hills, New York, USA

Background: C. difficile infection (CDI) is a recent epidemic in the United States affecting all age groups. Resistance to metronidazole has become a clinical challenge that warrants the use of salvage therapy. We evaluated the efficacy of rifaximin in metronidazole-resistant CDI in the community.

Methods: Twenty five patients with CDI were recruited. Age range: 48-65 years; male - 13, female - 12; community-acquired CDI-13, nursing home-acquired CDI-12; mean white blood cell count-14,000/mm^3, mean creatinine-0.9 mg/dL. All had mild-to-moderate CDI (5-10 bowel movements a day). Within the last 3 months, all were exposed to antibiotics, 18 (72%) to proton pump inhibitors, and 12 (48%) hospitalized. All CDI was resistant to metronidazole. All received oral rifaximin 400 mg three times daily for 4 days after stopping metronidazole. After 56 days, stool was tested for C difficile using PCR (Quest Diagnostics, Teterboro, NJ) to assess the efficacy of treatment. Exclusions included sepsis, abdominal distention, leukocyte count ≥ 20,000/mm^3, human immunodeficiency virus infection, multi-organ failure, renal failure, recent exposure to vancomycin or rifampicin, recent organ transplant recipients, patients on ventilator support, and receiving chemotherapy.

Results: Sixteen (64%) patients eradicated the infection (negative PCR after 56 days). Three (12%) aborted therapy because of abdominal dissection. In a per-protocol analysis, 72.7% of patients responded to rifaximin salvage therapy. Oral rifaximin was well tolerated.

Conclusion: Rifaximin may be considered in the treatment of mild-to-moderate metronidazole resistant CDI. Larger randomized trials might support these preliminary findings.

PP-060  Prevalence and antimicrobial susceptibility of Campylobacter spp. isolated from beef and raw chicken in Tehran, Iran

Maryam Sanaie, Mohammad Hamidian*, Masoumeh Azimi-Rad, Mehdi Bolfon, Mohammad Reza Zali. The Research Center for Gastroenterology and Liver Disease, Shaheed Beheshti University of Medical Sciences, Tehran, Iran

Background: Campylobacter spp. resistant to commonly used antimicrobials constitute one of the leading causes of bacterial gastrointestinal worldwide. The current study was done to determine prevalence and antimicrobial resistance of Campylobacter spp. from retailers in Tehran.

Methods: During 2007-2008, samples of beef and raw chicken were randomly selected from retailers in Tehran and cultured and identified according to biochemical and microbiological standard methods. Antimicrobial susceptibility testing of the isolates was done by Kirby-Bauer method for ampicillin, neomycin, streptomycin, nalidixic acid, gentamicin, tetracycline, spectinomycin, chloramphenicol, and ciprofloxacin. Molecular identification of the isolated was done using PCR by specific primers for hippuratease gene for C. jejuni and aspartokinase of C. coli as previously described.

Results: A total of 378 samples obtained of which 188 (49.7%) were raw chicken and 190 (50.2%) were beef. Campylobacter spp. were collected from 112 (29.6%) of the cultured samples. Of these 75% were C. jejuni and 25% C. coli. The majority of the isolates (71.6%) were resistant to nalidixic acid while none of them showed resistance to gentamicin and imipenem. Resistance to ciprofloxacin, tetracycline ampicillin and neomycin were 47.4%, 27.4%, 23.2% and 3.2% respectively and 2.1% of the isolates were resistant to streptomycin and spectinomycin.

Conclusion: The results showed a high prevalence of resistance to nalidixic acid and ciprofloxacin emphasizing to continuous resistance monitoring of Campylobacter spp. in the country. Because of the rapid dissemination of resistance genes and antibiotic pressure, a prudent use of antibiotics is imperative to preserve its usefulness in the country.

PP-061  Viral factors have little or no influence on liver injury in CHB: observation from Bangladesh

Mamun Mahtab1,2, Salimur Rahman1,2, Mobin Khan1, Mohammad Kamal1, Rakesh Aggarwal1, Sirish Kumar2, Fazle Akbar1,2 Bangabandhu Sheikh Mujib Medical University; 1Viral Hepatitis Foundation Bangladesh; 2Sanjay Gandhi Post-graduate Institute of Medical Sciences; 3Toshiba General Hospital

Background: It is assumed that patients with CHB with high DNA exhibit increased liver damage and treatment guidelines emphasize on reducing viral load. These observations are from developed countries, but little is known about ~80% HBsAg carriers living in developing nations. In this study, we addressed this issue.

Methods: 402 Bangladeshi CHB patients were enrolled and tested for HBV serologic markers and ALT. All underwent liver biopsy. HBV genotyping was done in 45.

Result: High HBV DNA (>100,000 copies/ml) was detected in 64.4%. 43.5% were HBeAg +ve and 56.5% HBeAg -ve. HAI-NI >3 was in 62.9% HBeAg +ve and 49.8% HBeAg -ve respectively. In high HBV DNA, 59.8% had higher HAI-NI, opposed to 45.5% with low DNA. Much more with low DNA had considerable hepatic fibrosis compared to high DNA. However difference in HAI-F was not significant. Genotyping was done in 45. Genotype C (38%) and D (49%) were predominant. Comparison between HBV genotype, DNA load and liver damage could not be done because genotyping was done in only 45.

Conclusion: Correlation could not be established between viral load and liver damage in CHB in Bangladesh. Further study is needed to identify other factors influencing liver damage in CHB in developing nations. Our study may suggest the research direction for management of these cases.

PP-062  Effects of methylprednisolone and tacrolimus on cccDNA replication of hepatitis B virus in HepG2.2.15 cell line

Weiping Zheng*, Hongli Song, Zhongyang Shen. Department of Organ Transplantation, Tianjin the First Central Hospital

Aim: The effect of Methylprednisolone (MP) and tacrolimus (FK506) on hepatitis B virus (HBV) replication was investigated, and level of cccDNA after MP and FK506 treatment was studied in order to provide clues to explore the effect of MP and FK506 on HBV replication.

Methods: MTT assay was used to evaluate the cytotoxicity of MP and FK506. The HBV replication level in HepG2.2.15 cell line was determined by an electrochemiluminescence analysis of hepatitis B surface antigens (HBsAg) and Hepatitis B e antigens (HBeAg) in culture supernatant, while the intracellular HBV cccDNA replication level was analyzed by real time polymerase chain reaction (RT-PCR).

Results: MTT method confirmerd that the nontoxic concentrations of MP and FK506 were 0-500µg/ml. After the treatment of MP at the concentration of 0, 5, 10, 20, 50, 100, 250 and 500 µg/L, in comparison to the control group. MP was able to