Spontaneous Bacterial Peritonitis in Liver Cirrhosis

Abstract IDDF2021-ABS-0019 Figure 1

Abstract IDDF2021-ABS-0019 Figure 2

summary of the global prevalence is found in figure 1. Prevalence of community-acquired SBP was 6.05% (CI: 4.32% - 8.40%), and 11.11% (CI: 5.84% - 20.11%), for healthcare-associated SBP. Antibiotic-resistant microorganisms were found in 11.51% (CI: 7.28% - 17.74%) of SBP patients. Of which, methicillin-resistant *Staphylococcus aureus* was most common (6.23%; CI: 3.83% - 9.97%), followed by extended-spectrum beta-lactamase producing organisms (6.19%; CI: 3.32% - 11.26%), and lastly vancomycin-resistant enterococci (1.91%; CI: 0.41% - 8.46%). A subgroup analysis was conducted to compare the rate of resistant SBP based on continent and summarized in figure 2. Subgroup analysis comparing prevalence, antibiotic resistance and outcomes between income groups.

Conclusions SBP remains a frequent complication of liver cirrhosis worldwide. The drawn link between income level and SBP in liver cirrhosis may enable further insight on actions necessary to tackle the disease on a global scale.

IDDF2021-ABS-0030 4D ULTRASONOGRAPHY FOR THERAPEUTIC RADIOFREQUENCY ABLATION FOR HEPATOCELLULAR CARCINOMA-INCLUDED ENHANCED-ULTRASONOGRAPHY

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Background Studies to evaluate the tumor vascularity in HCC have been done extensively with various imaging modalities because the finding of the vascularity is helpful to evaluate the biological features of the tumor. In the present study, we investigated whether 4d real-time flow imaging is useful to display the accurate position of RFA needle in the tumor and evaluated the efficacy of therapy in patients with HCC.

Methods Fifteen patients with HCC were admitted to our Hospital. Their diagnosis was confirmed by Dynamic CT and celiac angiography. Based on Child score, 14 patients were diagnoses as grade A, and 1 patient as grade B. All patients enrolled showed hypervascular enhancement of HCC on the contrast-enhanced US and/or Dynamic CT. The diameters of tumor were 1.1-2.0cm in 9 nodules, 2.1-3.0cm in 3, 3.1-5.0cm in 3, respectively. All patients gave written informed consent, and this protocol has been approved by the Human Studies Committee at Masuko Memorial Hospital. US imaging used APLIO XG for RFA therapy with a convex probe as US system. 4D real-time refers here to the display of 3-dimensional moving images composed of 3 orthogonally intersecting scans in the transverse, longitudinal and horizontal planes. We used an RFA generator with 200W power connected to a 17-gauge perfusion needle.

Results It was possible to obtain an accurate position of the cool-tip needle and perform the RFA procedure in all HCC patients with 15 nodules using a 4D real-time APLIO XG US machine.

We confirmed by various angles that the needle was inserted into the center of tumor nodules.

The simultaneous study before RFA therapy showed the inflow of arterial blood and tumor stain, and importantly, it appeared that 4D real-time US provided much perceptible information on the spatial relationship between RFA needle and the target lesion and resulted in accurate therapeutic efficacy for percutaneous RFA procedure.

Conclusions We experienced the treatment of 15 patients with HCC by RFA 4D real-time ultrasound system. The application of this method allowed a more accurate cauterization of the tumor.

IDDF2021-ABS-0034 MIDODRINE AS A SECONDARY PROPHYLAXIS FOR HEPATORENAL SYNDROME

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Background Midodrine is an alpha agonist with proven benefits in refractory ascites and hepatorenal syndrome (HRS). Terlipressin is superior to midodrine plus octreotide for HRS. However, terlipressin requires intravenous access and is associated with risk of mesenteric ischemia, cardiac side effects, peripheral cyanosis and even diarrhea on prolonged use. Midodrine, although inferior to terlipressin in hepatorenal syndrome, it can serve as a step-down approach helping us decrease the duration of terlipressin.

Methods In this single-center prospective study, 50 consecutive patients presenting to the Department of Gastroenterology with acute kidney injury (AKI) and fulfilling EASL definition of HRS-AKI were included. All patients received albumin (40 grams per day) plus Terlipressin (2-4 mg per day) till complete resolution of HRS (serum creatinine within 0.3 mg/dL of baseline). After resolution, Group A patients were continued on standard of care (SOC) while Group B patients were started on Midodrine 22.5mg per day in addition. The primary outcome was the recurrence of AKI at 12 weeks. The secondary outcomes were the ability to re-introduction of beta-blockers and diuretics within 12 weeks.

Results The two groups were similar in age, gender, CTP scores, MELD scores and etiology of cirrhosis at baseline. The etiology for AKI-HRS was diuretics/diarrhea-related or sepsis-related in all patients. Four patients in each group were lost to follow-up while 2 patients in GrA and 3 patients in GrB died. The recurrence of AKI within 12 weeks was higher in GrA compared to GrB (5/19 versus 2/18 respectively). At 12 weeks, 3 patients in GrA could tolerate diuretics while 10 patients in GrB could tolerate diuretics. Beta-blockers were not started in any patient in GrA while was started in 1 patient in GrB. No added side effects were seen in the midodrine group.

Conclusions In this small study, Midodrine served as an effective drug for secondary prevention of HRS. Large randomized studies may be carried out in the future to support this pilot study.

IDDF2021-ABS-0038 SAFETY AND TECHNICAL SUCCESS OF LAPAROSCOPIC TRANSCYSTIC COMMON BILE DUCT EXPLORATION IN PATIENTS WITH SUSPECTED CHOLEDOCHOLITHIASIS BUT NEGATIVE MRCP UNDERGOING LAPAROSCOPIC CHOLECYSTECTOMY

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Background There is little research to evaluate laparoscopic transcystic common bile duct (CBD) exploration (LTCBDE) as a diagnostic test to identify choledocholithiasis undergoing laparoscopic cholecystectomy (LC). The aims of this study were to assess the technical success and safety of LTCBDE in patients with suspected choledocholithiasis but negative magnetic resonance cholangiopancreatography (MRCP) undergoing LC.

Methods We did an ambispective cohort study in patients with gallstones and suspected CBD stones but negative MRCP undergoing LC. The primary outcomes were the rate of complication in the hospital.

Results Between January 2010 and December 2018, 620 patients (median age, 58 years; 58.4% female) were eligible for the study. The success rate of LTCBDE was 91.8% and CBD stones were observed in 53.3% with a stone clearance rate of 99.3%. The overall postoperative complication rate was 0.65% and no death was recorded in the total cohort. Notably, the morbidity in LTCBDE is 0.53%. Retained CBD stones were diagnosed in 2 patients and managed by ERCP successfully. In LTCBDE cohort, the median duration of operation was 78 (60-100) min and the median postoperative hospital stay was 1 (1-2) days. Overall, at a mean follow-up of 4.1 (2.3-6.1) years, recurrent CBD stones occurred in 1.1% and all-cause mortality in 0.6%.

Conclusions Our study suggests that LTCBDE is associated with a low risk of complications and can be performed safely in patients undergoing LC. The increased diagnostic yield of LTCBDE found in this study contributes to the reduce of retained stones' incidence. Thus, LTCBDE should be considered the favored choice in the diagnostic algorithm for choledocholithiasis if patients with suspected choledocholithiasis but negative MRCP undergoing LC.

IDDF2021-ABS-0040 LESS LIVER FIBROSIS MARKER INCREMENT IN OVERWEIGHT CHRONIC HEPATITIS B PATIENTS OBSERVED BY AGE-ADJUSTED FIBROSIS-4 INDEX

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Background Chronic hepatitis B patients in Taiwan with no or limited liver injury are not reimbursed for antiviral treatment by the Taiwan National Health Insurance (NHI). Innovative fibrosis marker, age-adjusted Fibrosis-4 Index (FIB4-AA), was implemented to evaluate the tendency of liver fibrosis in these patients.