group, 51.3% were attributable to viral hepatitis, 33.4% to nonalcoholic fatty liver disease (NAFLD), and 13% to alcoholic liver disease. In the cirrhosis, 73.4% were attributable to viral causes, and 18.1% to alcohol, while in the liver cancer, 86.6% were to viral cause, and 11.6% to alcohol. Hepatitis B virus (HBV) infection caused 82% of chronic hepatitis, 84% of cirrhosis, and 75% of hepatocellular carcinoma (HCC). Acute viral hepatitis was attributable to hepatitis A virus in 76%. Among the liver tumors, malignant tumors were present in 54%, and benign tumors in 46%, which included hemangiomia in 55%, cystic liver disease in 36% and liver abscess in 6%.

Conclusions: The major types of the current liver disease were chronic viral hepatitis and NAFLD. HBV was the major cause of chronic liver disease, especially liver cirrhosis and HCC. Continuous survey will provide the changing pattern and cause of liver diseases in the community.

Keyword: Liver disease, Cause, Diagnosis, Epidemiology, Korea

PE-122

MDCT of acute hepatitis A: imaging features and correlation with clinical severity
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Background: To evaluate CT features of acute hepatitis A and to correlate them with the clinical severity of hepatitis A represented by prothrombin time (PT), serum levels of total bilirubin and alanine aminotransferase (ALT).

Methods: The institutional review board approved this retrospective study and waived informed consent. One hundred two patients (62 male and 40 female; mean age, 33 years; age range, 11-79 years) who underwent multiphase CT for the evaluation of serologically confirmed acute hepatitis A were included. CT images were reviewed for the presence of hepatomegaly, splenomegaly, periportal edema, infiltrations along falciform ligament, mural thickening of gallbladder, lymphadenopathy, and ascites and for the patterns of hepatic parenchymal enhancement by two radiologists. Correlations were tested between the imaging findings and severity of hepatitis reflected by PT, serum levels of bilirubin and ALT. Statistical analyses were performed with univariate (Student t and Fisher’s exact tests) and multivariate (logistic regression) analyses.

Result: The patients with ascites (n=41, 40.2%) showed significantly prolonged PT than those without ascites (n=61, 59.8%) (69.1±24.5 vs. 82.4±18.5%; p<0.01). The patients with gallbladder wall thickening (n=79, 77.5%) demonstrated significantly higher level of bilirubin than those without mural thickening of gallbladder (n=23, 22.5%) (6.27±4.82 vs. 2.95±1.70 mg/dL; p=0.01). The ALT level was significantly higher in the patients with heterogeneous parenchymal enhancement (n=47) and periportal edema (n=64) (p<0.01). In the logistic regression analysis, the presence of ascites was significantly associated with the severe hepatitis A defined by prolonged PT less than 50% (n=14) (p=0.01), while gallbladder wall thickening (p=0.01) and heterogeneous parenchymal enhancement (p=0.04) were significantly associated with the severe hepatitis defined by high bilirubin level (≥ 7 mg/dL, n=23).

Conclusion: The presence of ascites, gallbladder wall thickening and heterogeneous hepatic parenchymal enhancement by CT examination reflect disease severity in acute hepatitis A.

Keyword: Acute hepatitis A, CT, Severity

PF-123

Molecular epidemiology of acute hepatitis A virus outbreak in Korea, 2007-2009
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Background: Hepatitis A virus (HAV) is one of the most important causes of fecally transmitted acute viral hepatitis worldwide.

Methods: In order to characterize the viral agents causing the outbreak from June 2007 to May 2009, we collected specimens and analyzed the agents by using RT-PCR for detection of VP1/P2A and VP3/VP1 region of HAV, which were compared with reference strains by a multiple-alignment algorithm.

Results: Among 5 reported outbreaks, 64 patients showed anti-HAV IgM positive including Kaesong Industrial Region (June 2007 in North Korea, n=11), Jeonnam (April 2008, n=15), Daegu (May 2008, n=13), Seoul (May 2009, n=22), and Incheon (May 2009, n=3). The isolates from Kaesong Industrial Region and Jeonnam were belonging to genotype IA with 100% homology, and those from Seoul and Incheon were belonging to genotype IIIA with 98.9-100% homology. On the other hand, genotype IIIA was dominant in Daegu showing 95.7-100% homology comparing with isolates of same outbreak. All HAV isolates detected from Kaesong Industrial Region, Jeonnam, Seoul, and Incheon were clustered as one. The HAV isolates from Daegu showed two clusters meaning that there might be multiple sources in HAV outbreak.

Conclusion: This present study suggests that 2 genotypes of HAV are currently co-circulating, and the prevalence of genotype IIIA was increased in Korea.

Keyword: Hepatitis A, Outbreaks, Genotype IIIA

PE-124

A case of propylthiouracil-induced acute hepatic failure
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