145. Liver Steatosis as a Risk Factor for Invasive Group B Streptococcus Infection in Non-Pregnant Adults
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Session: 37. Bacteremia, CLABSI, and Endovascular Infections
Thursday, October 3, 2019: 12:15 PM

**Background.** Nonalcoholic fatty liver disease (NAFLD) is the most common cause of chronic liver disease associated with metabolic syndrome and systemic changes in immune response. However, the impact of NAFLD on bacterial infections is unknown. Group B Streptococcus (GBS) infection is a significant cause of invasive disease among adult non-pregnant patients with high mortality rates, associated with diabetes mellitus and obesity as the most common underlying conditions. The aim of this study was to analyze the association of liver steatosis with invasive GBS disease outcomes.

**Methods.** A retrospective, cohort study of all non-pregnant adult patients diagnosed with invasive GBS infection (GBS isolated from the normally sterile site) was conducted at the University Hospital for Infectious Diseases Zagreb during a 14-year period.

**Results.** Of the 127 patients with invasive GBS, 90 had complete data and were included in the study. Disease primarily presented as bacteremia without focus (34; 37.8%), cellulitis/erysipelas (27; 30.0%), pneumonia (11; 12.2%) and endocarditis (8; 8.9%). The most common co-morbidities were diabetes (36; 40.0%), dyslipidemia (15; 16.7%), cardiovascular (32; 35.6%), peripheral vascular disease (18; 20.0%) and malignancy (16; 17.8%). Based upon the results of abdominal US the patients were divided into two groups: with steatosis (39; 43.3%) and without steatosis (51; 56.6%). The patients with liver steatosis were younger (63 ± 13 vs. 71 ± 14 years, P = 0.01), had higher AST (45.0; IQR 30–71 vs. 28.5; IQR 20–71, P = 0.047) and ALT (38; 25.5–55.5 vs. 21.5; 14–40, P = 0.009). There were no differences in clinical presentation and comorbidities between groups. The in-hospital mortality was 43.5% in patients with steatosis (17/39) and 17.6% (9/51) in control group (P = 0.009). Logistic regression analysis showed that endocarditis (OR 200.8; 95% CI 11.5–3512.5), primary bacteremia (6.5; 17–25.0), qSOFA ≥ 2 (20.2; 4.2–97.6) and liver steatosis (8.4; 2.0–35.1) were associated with in-hospital mortality.

**Conclusion.** Our findings showed that invasive GBS disease has significant mortality, which is independently associated with liver steatosis.

Disclosures. All authors: No reported disclosures.

146. Infective Endocarditis in South Korea: a 12-year Single-Center Experience of 419 Patients
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Session: 37. Bacteremia, CLABSI, and Endovascular Infections
Thursday, October 3, 2019: 12:15 PM

**Background.** Infective endocarditis (IE) is a potentially lethal disease that has undergone constant changes in epidemiology and pathogen. Treatment of IE has become more complex with today's myriad healthcare-associated factors as well as regional differences in causative organisms. Therefore, it is necessary to investigate the overall trends, microbiological features, clinical characteristics and outcomes of IE in South Korea.

**Methods.** We performed a retrospective cohort study of patients with the diagnosis of probable or definite IE according to the modified Duke Criteria admitted to a tertiary care center in South Korea between November 2005 and August 2017. Poisson log-linear regression was used to estimate time trends of IE incidence rate and mortality rate. Risk factors for in-hospital mortality were evaluated by multivariate logistic regression analysis including an interaction term.

**Results.** There were 419 IE patients (275 male vs. 144 female) during the study period. The median age of the patients was 56 years. The annual incidence rate of IE of our institution was significantly increased. (RR 1.05; 95% CI, 1.02–1.08; P = 0.006) The mortality rate showed trends toward down, but not statistically significant (P = 0.875). IE was related to a prosthetic valve in 15.0% and 21.7% patients developed IE during hospitalization. The mitral valve was the most commonly affected valve (61.3%). Causative microorganisms were identified in 309 patients (73.7%) and included streptococci (34.6%), followed by Staphylococcus aureus (15.8%) and enterococci (7.9%). The in-hospital mortality rate was 14.6%. Logistic regression analysis found aortic valve endocarditis (OR 3.18; P = 0.001), IE caused by staphylococcus aureus (OR 2.32; P = 0.026), a presence of central nerve system embolic complication (OR 1.98; P = 0.031), a high SOFA score (OR 1.22; P = 0.023) and a high Charlson's comorbidity index (OR 1.11; P = 0.019) as predictors of in-hospital mortality. On the other hand, surgical intervention for IE was found to be a protective factor against mortality. (OR 0.25; P < 0.001)

**Conclusion.** Although IE has been increasing, the mortality rate has not yet reduced significantly. Studies on causative organisms of IE and risk factors for mortality are warranted in improving prognosis.
Conclusion. High heterogeneity in therapeutic management of patients with NF-GNBSI was observed. DTR was a strong predictor of mortality. AET was associated with improved outcome.

Disclosures. All authors: No reported disclosures.

148. Retrospective Evaluation of Acute Cholangitis and Clinical Implication and Management of Secondary Bacteremia
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Session: 37. Bacteremia, CLABSI, and Endovascular Infections
Thursday, October 3, 2019: 12:15 PM

Background. Optimum duration of antimicrobial therapy for acute bacteremic cholangitis is not well established; however, 4–7 days is recommended by the 2018 Tokyo guidelines in those without Gram-positive bacteremia.

Methods. A retrospective study performed at Mayo Clinic - Rochester, Florida and Arizona sites was conducted, reviewing all adult patients with the first episode of acute cholangitis secondary to biliary stone obstruction, between January 1, 2012 and December 31, 2017. We reviewed the duration of prescribed antimicrobials.

Results. Among 331 included cases, 197(60%) were men, 66 (20%) were immunocompromised. Presenting symptoms included fever in 202 (61.5%), abdominal pain in 289 (86%), jaundice in 128 (38.7%), and altered mentation in 49 (15%). Among these, 256 (77%) were classified as definitive and 38 (11.5%) were “suspected” using the 2018 Tokyo guideline classification. Cholangitis grade was grade III in 134 (40.5%); grade II in 115 (34.7%); and grade I in 82 (24.8%). Majority of cases, 321 (97%), underwent source control—most commonly 309 (96%) achieved by endoscopic retrograde cholangiopancreatography (ERCP). Source control occurred within 24 hr of presentation in 197 (61.4%) of the cases. Bacteremia was documented in 131/277 (47%). Majority of bacteremias were due to Gram-negative organisms in 119 (91%). Mean duration of antibiotic therapy following “source control” was 9.6 days (SD 7.0). Cases with bacteremia, resulted in longer treatment duration, mean of 13 days (SD 5.6), regardless of the isolated organism. Overall 30 day mortality was 14/331 (4.2%). No mortality difference was noted in patients who underwent early (within 12 hours) vs. later source control (4.55% Vs. 4.53%), nor in those who received more or less than 6 days of antibiotic therapy after source control (4.7% Vs. 3.9%, P = 0.76). No difference in mortality was observed in those with or without bacteremia.

Conclusion. Our results note the use of longer courses of antimicrobials for management of bacteremic cholangitis, regardless of the organism type. This population could be a prime target for an antimicrobial stewardship intervention, to decrease the duration of prescribed antimicrobials in accordance with recent guidelines.

Disclosures. All authors: No reported disclosures.