Results. A total of 215 cases of septic arthritis were identified, and 64% (n = 138) had S. aureus cultured. In this set, 36% (50/138) of these patients were identified with MRSA. Of the patients diagnosed with MRSA septic arthritis, 50% screened prior to admission had a positive result (8/16) and 48% screened during admission had a positive result (14/29). Compared with septic arthritis with other organisms, risk factors for MRSA included history of intravenous drug use (OR: 4.3; CI: 1.7 to 10.8, P = 0.002) and being immunocompetent (OR: 0.3; CI: 0.1 to 0.6, P = 0.002). These infections were associated with concurrent infections of the spine (OR: 5.7; CI: 2.1 to 15.1, P = 0.0005). As compared with other organisms, there was a high proportion of non-S. aureus isolates identified in conjunction with OAI. Antibiotic susceptibilities differing from our institutional antibiogram suggest that disease-specific antibiotics will aid with empirc treatment decisions.

Disclosures. All authors: No reported disclosures.

39.14. Impact of Day and Admission to Diagnose Arthrocentesis on Mortality and Other Outcomes in Solid-Organ Transplant Recipients with Septic Arthritis: A Nationwide Analysis

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Session: 48. Infections of Joints
Thursday, October 3, 2019: 12:15 PM

Background. Multiple case reports have been reported assessing the outcomes for solid-organ transplant recipients (SOTR) admitted to the hospital with septic arthritis of a native joint (SANJ); however, there are no data evaluating the outcome of these patients when they are admitted on the weekend compared with the rest of the week.

Methods. The NIS database for the years 2016 was utilized to identify all SOTR with SANJ using ICD-10 codes. SOTR status was defined as those adults with a history of a transplanted organ including heart, lungs, a combined heart and lung, liver, kidney, intestine or pancreas. Admissions between midnight Friday and midnight Sunday were classified as weekend admissions. Early arthrocentesis was defined as percutaneous arthrocentesis performed within 24 hours of admission. Odds ratios (OR) were calculated for primary and secondary outcomes including in-hospital mortality rate, rate of diagnostic arthrocentesis and early arthrocentesis, length of stay and total hospital charges. The results were compared after adjustment for age, race, gender, day of admission, Charlson comorbidity index and median household yearly income in the patient's zip code. We used STATA-15 for statistical analysis.

Results. We identified 319 SOTR with SANJ. Compared with SOTR admitted with SANJ on weekdays, those admitted on weekends had increased in-hospital mortality rates (odds ratio [OR] 11; 95% CI: 1.2–9.7, P < 0.05), but similar length of stay (P > 0.05) and hospital charges (P > 0.05). However, regardless of the day of admission those who received an early arthrocentesis had a lower length of stay (P < 0.05) and by weekend hospital charges (P = 0.05).

Conclusion. Our study showed that compared with SOTR admitted with SANJ on weekdays, those admitted on weekends had increased mortality rates similar but length of stays and total hospital charges. However, patients who received an early arthrocentesis had a significant reduction in both length of stay and hospital charges regardless of the day of admission. These results add weight to the hypothesis of negative outcomes in weekend admissions. Moreover, we believe that our findings require further investigation to establish the role of early arthrocentesis in the management of septic arthritis.

Disclosures. All authors: No reported disclosures.