Twenty-six PMPJIs managed with DAIiR were identified. Mean age of the infected patients was 66 years. 18 (69%) patients were female and 19 (73%) were Caucasians. Infected sites were hip in 15 (58%), knee in 10 (38%) and ankle in 1 (4%) patient. 22 (85%) patients had osteoarthritis, 3 (12%) had diabetes, 3 (12%) were on steroids and 1 (4%) had rheumatoid arthritis. Symptom onset of less than a week was noted in 14 (58%) and 3 or more weeks in 8 (31%) patients. Pain, swelling and drainage were present in 21 (81%), 13 (50%) and 18 (69%) cases. Fever on admission was noted in 7 (27%) patients. 11 (42%) patients were admitted in the following 12 months after DAIR. 2 (9%) patients developed superficial surgical site infection (SSSI) while 9 (38%) had infection recurrence within 1 year. 5 (20%) patients required further debridement and antibiotics. 5 (19%) had good outcome with 3–6 months of antibiotics. 3 (12%) patients required long-term chronic suppressive therapy. One patient died from a cardiac event during follow-up.

Conclusion. In our study, PMPJIs managed with DAIiR had high readmission rates and deep surgical site infections. DAIR failure, noted in 23% of our cases, required implant removal within 12 months of follow-up.

Disclosures. All authors: No reported disclosures.

382. Difference in Pathogens Between Hip and Knee Prosthetic Joint Infection Michael Henry, MD; Milan Kapadia, MD; Joseph Nguyen; Barry Bruece, FIDSA/MD and Andy O. Miller, MD; 1Hospital for Special Surgery, New York, New York; 2Weill Cornell University Medical College, New York, New York

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

Background. There is contradicting evidence characterizing the difference in pathogens that cause hip and knee prosthesis infection (PJI). A possible difference in microbiota may inform choices in antibiotic etiology, prophylaxis, and empiric treatment. We sought to analyze a large cohort of PJIs to see whether there was a significant difference in pathogen between joints.

Methods. A retrospective cohort of hip and knee PJIs, from 2008 to 2016, were identified by ICD code and surgical codes. The PJi pathogen was identified from synovial or intra-articular tissue cultures. The Student’s t-test was used to compare continuous variables. Chi-square tests were used to compare the categorical variables to joint.

Results. 807 PJI cases were identified including 444 knees and 363 hips. There were no significant differences between hip and knee PJIs in age, sex, history of PJI, rheumatoid arthritis, Charlon comorbidity index and laterality. There was a higher frequency of diabetes in knee PJIs (25.3%) compared with hip PJIs (15.7%), P < 0.001. No significant difference was found in the prevalence of fungal, staphylococcal including Staphylococcus aureus, streptococcal, or enterococcal pathogens between hip and knee PJIs.

Conclusion. In this single-center cohort, hip and knees PJIs are infected with similar pathogens. Multiple site studies are needed to characterize the microbiology of PJIs at a larger scale.

Disclosures. All authors: No reported disclosures.

383. Rheumatic Disease Patients Have More Culture Negative Prosthetic Joint Infections: Are There Clinical Differences? Milan Kapadia, MD; Andy O. Miller, MD; Allina Nocorn, PhD MPH; Peter Solcos, MD, 1 and Susan M. Sepanek, PhD; 1Hospital for Special Surgery, Jersey City, New Jersey; 2Weill Cornell Medicine, New York, New York

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Background. Rheumatic disease (RD) patients are at increased risk for prosthetic joint infections (PJI), however, diagnosis is challenging because active RD may mimic joint infection. We aimed to assess the incidence of culture-negative (CN) PJI in a population of RD and osteoarthritic (OA) PJI using an institutional PJI registry. Baseline clinical differences between CN-RD and culture-positive (CP-RD) as well as the relationship of culture negativity to survivorship of the prosthesis were also evaluated.

Methods. A retrospective cohort of hip and knee PJIs, from 2009 to 2016, were identified by ICD code and use of biologics and DMARDs. CN cases were identified as PJIs with no evidence of microbial growth in intraoperative cultures. Demographics, medications, microbiology, surgical therapy and outcome were abstracted. Baseline characteristics were evaluated using Fisher’s exact and Chi-Square tests. Kaplan–Meier estimates were used to calculate survivorship.

Results. 803 PJI cases were identified including 36 RD (33 rheumatoid arthritis and 3 systemic lupus erythematosus) and 771 OA. A higher proportion of RD PJI were CN (N = 10, 27%) vs. OA PJI (N = 109, 14%), P = 0.02. Fewer CN-RD cases met PJI histopathology criteria compared with CN-OA, (P = 0.08). On average, RD-CN were younger than OA-CN (59 vs 69, P = 0.01), but no different than RD-CP cases. One year survivorship of CN-OA and CN-RD were 87% and 66%, respectively and 10% and 16% at 5 years. Comparing CN-RD vs. CP-RD, no difference was observed in age, smoking, diabetes, or Charlon comorbidities, but a trend toward higher prevalence of prior PJI in the CN-RD group. Clinically, no differences were found in surgical treatment (P = 0.92) or use of biologics and DMARDs (P = 0.12) between CN and CP RD patients.