fraction of our case population. Leukocytosis and elevated CRP tended to predict cure, whereas ESR and fever did not. As recommended in the IDSA guidelines, treatment outcome at 12 months. In qualifying patients, average days of pre-procedure and post-procedure were considered. The primary outcome was to determine if there was a difference in antibiotic treatment duration, both pre-procedure and post-procedure, between those that failed combination therapy and those patients for which the treatment was successful. Treatment failure was defined as documentation of no resolution of sacral osteomyelitis after treatment, re-initiation of antibiotics for sacral osteomyelitis of the same area, documented break down, or an unplanned flap-related procedure within 1 year of completion of antibiotic therapy.

Results: Twelve patients were identified for inclusion. Baseline characteristics were similar between groups; 5/8 patients successfully treated received vancomycin, compared to 4/4 patients that failed therapy. Overall, 75% (8/12) had a successful treatment outcome at 12 months. In qualifying patients, average days of pre-procedure and post-procedure antibiotics were similar between patients who achieved success and those that failed (45.5 vs. 44.3 days pre-procedure, respectively (p >0.05) and 39 vs. 43 days post-procedure (p >0.05), respectively). When evaluated by weeks of therapy, no statistically significant differences were noted in treatment success rates between those treated for less than 6 weeks versus those treated for longer (66.6% [2/3] vs. 63.6% [6/9], p >0.05).

Conclusion: No difference in pre- or post-flap procedure antibiotic duration was observed in patients who failed therapy compared to those who were successfully treated.

Disclosures: All Authors: No reported disclosures

33. Tedizolid Activity against Gram-Positive Bacterial Isolates Causing Bone and Joint Infections in the United States (2015–2019)

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Session: P-10. Bone and Joint

Background: Prolonged systemic antibiotic courses are frequently used to manage difficult-to-treat bone and joint infections (BJI). Tedizolid has been considered as a therapy candidate for BJI in adults and children. This study assessed the in vitro activity of tedizolid and comparator agents against a contemporary collection of Gram-positive (GP) and Gram-negative (GN) isolates.

Methods: A total of 310 Staphylococcus aureus (SA), 79 β-hemolytic streptococci (BHS), 52 coagulase-negative staphylococci (CoNS), and 37 Enterococcus faecalis isolates were included in this study. These isolates were collected from patients with BJI from 30 medical centers in the US between 2015 and 2019 as part of the Surveillance of Tedizolid Activity and Resistance (STAR) Program. Bacterial identification was confirmed by MALDI-TOF MS. MIC results were obtained by reference CLSI broth microdilution methods and interpretations used CLSI guidelines.

Results: Tedizolid (MIC₅₀ 0.12/0.25 mg/L) inhibited all SA at the CLSI break point (≤0.5 mg/L) including methicillin-resistant SA (35.8% of SA; MIC₅₀ 0.12/0.25 mg/L). Linezolid, vancomycin, and daptomycin had 100% susceptibility rates against SA isolates (Table). All CoNS isolates were inhibited by tedizolid at ≤0.5 mg/L. Tedizolid was active against all BHS (100% susceptible) as follows: S. pyogenes (MIC₅₀ 0.12/0.25 mg/L), S. agalactiae (MIC₅₀ 0.12/0.25 mg/L), and S. dysgalactiae (n=11; MIC₅₀ 0.25/0.25 mg/L). Penicillin, linezolid, vancomycin, and daptomycin also were active against BHS (100% susceptible). Tedizolid (MIC₅₀ 0.25/0.25 mg/L; ≤0.5 mg/L susceptible) was 4- to 8-fold more potent than linezolid (MIC₅₀ ≤1/1 mg/L) and vancomycin (MIC₅₀ ≤1/2 mg/L) against E. faecalis. GP isolates resistant to oxazolidinones were not observed.

Conclusion: Tedizolid demonstrated potent in vitro activity against this collection of contemporary GP isolates causing BJI in US hospitals. Tedizolid and comparator agents showed significant susceptibility against the most prevalent CA-MRSA and organisms groups, including MRSA. These findings support the clinical development of tedizolid as an additional option for treating BJI caused by GP pathogens.

Table 1

| Organism (no. tested) | MIC₅₀/MIC₉₀ (mg/L) | % susceptible by CLSI |
|-----------------------|-------------------|-----------------------|
| **Staphylococcus aureus** |                  |                       |
| SA (199)              | 0.12/0.25 (109)   | 1/2 (100)             |
| CoNS (111)            | 0.12/0.25 (109)   | 1/1 (100)             |
| CoNS (52)             | 0.12/0.25 (109)   | 1/1 (100)             |
| CoNS (37)             | 0.25/0.5 (109)    | 1/1 (100)             |
| **β-hemolytic streptococci** |            |                       |
| MSSA (199)            | 0.50/1.0 (109)    | 1/1 (100)             |
| MRSA (111)            | 0.25/0.5 (109)    | 1/1 (100)             |
| MSSA (52)             | 0.25/0.5 (109)    | 1/1 (100)             |
| BHS (199)             | 0.25/0.5 (109)    | 1/1 (100)             |

Tedizolid demonstrated potent in vitro activity against this collection of contemporary GP isolates causing BJI in US hospitals. Tedizolid and comparator agents showed significant susceptibility against the most prevalent CA-MRSA and organisms groups, including MRSA. These findings support the clinical development of tedizolid as an additional option for treating BJI caused by GP pathogens.

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334. Using high temperatures to eradicate prostatic joint associated biofilms on metal implants using alternating magnetic field: Efficacy and safety implications

Shahid Baksh, B.S.; Binbin Prasad, Ph.D.; Carolyn Sturge, Ph. D.; Christine A. Pybus, M.S.; Reej Pifer, Ph.D.; QJ Wang; MS; Rajiv Chopra, Ph.D.; David E. Greenberg, MD, UT Southwestern Medical Center, Farmers Branch, Texas; UT Southwestern Medical Center, Dallas, Texas; UT Southwestern Medical Center, Dallas, Texas; UT Southwestern Medical Center, Dallas, Texas; UT Southwestern Medical Center, Dallas, Texas; UT Southwestern Medical Center, Dallas, Texas

Session: P-10. Bone and Joint

Background: Prostatic joint infection (PJI) is a significant complication of modern arthroplasty. Revision surgery is frequently required due to the formation of biofilm. The presence of biofilm makes non surgical treatment difficult in part because traditional antibiotics are unable to penetrate this structure.

We have developed a noninvasive way to eradicate biofilm off the outer surface of metal implant utilizing alternating magnetic fields (AMF). AMF creates focused surface heating on metal lic implants and can be delivered in a fashion spaces significant heating of surrounding tissue. The study was to determine efficacy and safety of AMF when combined with traditional antibiotics in animal models of implant infection.

Methods: Pseudomonas aeroginosa (PA) and staphylococcus aureus (SA) were grown individually on stainless steel ball that were implanted into the thigh muscle of the mice. Mice placed in a custom built solenoid coil for AMF treatments. AMD heating of surrounding tissue. The study was to determine efficacy and safety of AMF when combined with traditional antibiotics in animal models of implant infection.

Results: Twelve patients were identified for inclusion. Baseline characteristics were similar between groups; 5/8 patients successfully treated received vancomycin, compared to 4/4 patients that failed therapy. Overall, 75% (8/12) had a successful treatment outcome at 12 months. In qualifying patients, average days of pre-procedure and post-procedure were similar between patients who achieved success and those that failed (45.5 vs. 44.3 days pre-procedure, respectively (p >0.05) and 39 vs. 43 days post-procedure (p >0.05), respectively). When evaluated by weeks of therapy, no statistically significant differences were noted in treatment success rates between those treated for less than 6 weeks versus those treated for longer (66.6% [2/3] vs. 63.6% [6/9], p >0.05).

Conclusion: No difference in pre- or post-flap procedure antibiotic duration was observed in patients who failed therapy compared to those who were successfully treated.

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