Abstract (eposter session)

Long-term antimicrobial treatment in patients with prosthetic joint infection

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Objectives: To describe the features of patients with prosthetic joint infections (PJI) that require long-term antimicrobial treatment (LTAT) and their outcome in terms for additional surgeries, superinfection, antimicrobial resistance, and adverse reactions (AR). Method: Prospective cohort study of patients with PJI followed for at least 18 months in a tertiary hospital from 2006-2011. Patients who received >=6 months of antibiotic treatment were included. Persistence of infection was defined as absence of improvement of infection signs, relapse as recurrence of infection after initial improvement by the same microorganism (MO), and superinfection as new infection by different MO that caused initial infection. Results: 47 patients required LTAT, 6 as first therapeutic option and 41 due to failure of initial surgical treatment performed to treat the infection [31 (76%) had been treated with debridement and prosthesis retention (DPR) and 10 (24%) with prosthesis removal (PR)]. Median age: 70 years (range: 32-92), women 28 (60%), comorbidities 34 (72%). Type of infection: acute 22 (47%), chronic, 25 (53%). Most common aetiologies: coagulase negative Staphylococcus, 10 (21%); S. aureus, 10 (21%); gramnegative bacilli, 9 (19%). Median follow-up: 26 months [interquartile range (IQR): 20-37]. Median of LTAT: 32 weeks (IQR: 24-172). Antibiotic regimen more frequent: fluorquinolones +/- rifampicin, 29 (62%) and cotrimoxazole +/- rifampicin, 10 (21%). Outcome: 28 (60%) required additional surgery due to relapse o persistence of infection [21 (75%) PR]; 2 of the 6 patients treated directly with LTAT, 22 of 31 patients treated with DPR, and 4 of 10 patients treated with PR. Of 8 MO available in relapses after LTAT, 5 (62.5%) had become resistant to antimicrobial used for treat the PJI (levofloxacin, rifampicin, cotrimoxazole). 16 (34%) patients suffered 21 surgical site superinfections, 13 (62%) of them caused by multidrug-resistant MO. 22 AR were recorded in 16 (34%) patients: no severe, 5 moderate, 17 mild. Conclusions: Most patients treated with LTAT were initially treated with DRP. More than half required additional surgery due to relapse, mainly PR. The probability of recurrence due to a resistant MO and of superinfection is high. Adverse effects are not negligible. Patients to be treated with LTAT should be carefully selected; LTAT should not be relied as a surgery-sparing approach even in patients who are considered initially as bad candidates for surgery.