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Abstract (poster session)

**Epidemiology, clinical manifestations, management and outcome of 135 reported cases of Candida arthritis**

M.N. Gamaletsou\*, B. Rammaert, M.A. Bueno, B. Moriyama, N.V. Sipsas, D.P. Kontoyiannis, E. Roilides, B. Brause, V. Zeller, C. Elie, R. Prinapori, J. Tajaldein, O. Lortholary, T.J. Walsh (Athens, GR; Paris, FR; New York, Bethesda, US; Houston, US; Thessaloniki, GR; Italy, FR; Doha, QA)

Background: Candida arthritis is a debilitating form of deeply invasive candidiasis. Its epidemiology, clinical manifestations, management and outcome are not well understood. Objective: To characterize the epidemiology, clinical manifestations, management and outcome of published cases of Candida arthritis. Methods: We identified 135 evaluable cases of Candida arthritis in available literature (1967-2010). Among the variables studied were Candida spp. in joint and/or adjacent bone, underlying condition, immunosuppression, clinical manifestations, antifungal therapy, surgery, breakthrough infections and outcome. Results: Among 135 cases, 77(57%) were males and 35 were pediatric patients. Median age was 52y(range<1-93y). Most patients (67%) were not pharmacologically immunosuppressed. Orthopedic surgery was performed in 29% and abdominal surgery in 18%. Among 27 prosthetic joints, 96% were infected, 52% loosened and 78% required removal of hardware. Single-joints were infected in 73%;  $\geq 2$  joints were infected in 19%. Clinical manifestations included pain (82%), erythema (23%), edema (61%), draining pus (4%) limited function (41%) and fever (10%). Knee (67%), hip (21%), and shoulder (8%) were the most commonly infected joints. Synovial fluid had median WBC=15,500/ $\mu$ L(range 4100-220,000/ $\mu$ L) and median %PMNs=89(range 24-98). Concurrent osteomyelitis of adjacent bone was present in 27%. Candida albicans constituted 61% and C. parapsilosis 13. Most cases (75%) arose de novo while 34(25%) emerged during antifungal therapy. Osteolysis was present in 21%, joint effusion in 14%, and decreased articular space in 5%. Radiological follow-up was performed in 25%, 94% of which displayed improvement. The most commonly used antifungal agents were amphotericin B (68%) and fluconazole (30%). Surgical interventions consisted of debridement in 36%, irrigation 10% and drainage 9%. Complete response was achieved in 82%, partial response 16%, and relapse 15%. Crude mortality was 11% with Candida-related mortality consisting of 3%. Conclusion: Candida arthritis mainly emerges as a de novo infection in usually non-immunosuppressed patients with hips and knees being most commonly infected. Localizing symptoms are frequent, fever is usually absent and the most common etiologic agents are C. albicans, C. parapsilosis and C. tropicalis. Management of Candida arthritis remains challenging with a clear risk of relapse, despite antifungal therapy.