

O346

Abstract (oral session)

Emergence of high-level aminoglycoside resistant enterococci in infectious endocarditis: epidemiology and therapeutic options from an Italian hospital

A. Tebini*, D. Radrizzani, D. Dalla Gasperina, E. Righi, A. Musazzi, P. Grossi (Varese, IT)

Objectives: To describe epidemiology and therapeutic strategies of enterococcal infectious endocarditis in a clinical case-series. **Methods:** We reviewed the data of all patients discharged from "Ospedale di Circolo e Fondazione Macchi" - Varese (Italy) with a diagnosis of infectious endocarditis during the period January 2005 - August 2011. **Results:** During the period January 2005 - August 2011 we observed 145 cases of infectious endocarditis in 134 patients. In our case series, *Streptococcus* spp. was the leading pathogen (33% of total), followed by *Staphylococcus* spp. (24.7%) and *Enterococcus* spp. (15.7%). We have identified 22 cases of enterococcal infectious endocarditis in 20 patients. Twenty cases were due to *Enterococcus faecalis*, 1 to *Enterococcus faecium* and one to *Enterococcus durans*. Mean age was 63.2 years (range 28-86). Eight cases (36.4%), including two on prosthetic valves, were caused by High Level Aminoglycoside Resistant (HLAR) strains: 7 were *E. faecalis* and one *E. faecium*. Of these, 5 cases (62.5%) were health-care related infections. We have treated 10 cases of enterococcal endocarditis with ampicillin plus gentamicin association, 10 cases with daptomycin alone or in association with ampicillin and 2 cases with other therapies. Surgery was necessary in 12 (55%) cases of enterococcal endocarditis. Specifically, HLAR enterococcal endocarditis were treated with ampicillin plus daptomycin association in 3 cases (1 out of 3 was due to *E. faecium*), with daptomycin alone in 2 cases, with ampicillin alone in one case, and with ampicillin plus levofloxacin in one case. The association of daptomycin plus ampicillin was successfully used in two other cases of enterococcal endocarditis. We report an overall 6-month mortality rate of 9.1% among enterococcal endocarditis. All patients treated with daptomycin, alone or in association with ampicillin, had a favourable outcome. **Conclusion:** As reported by the main case series, enterococci resulted as the third cause of infectious endocarditis in our study. *Enterococcus faecalis* represented the main enterococcal isolated strain. HLAR is an increasingly common resistance mechanism, accounting for 36.4% of our enterococcal endocarditis cases. Although limited by its number, our report shows good results of daptomycin use either alone or in association with ampicillin for the treatment of these infections.