

O258

Oral Session

Improving treatment of severe infections

ANTIBIOTIC TREATMENT OF VERTEBRAL OSTEOMYELITIS

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Background: Antibiotic treatment for vertebral osteomyelitis (VO) is not very formalized and guidelines are not based on strong evidence. Furthermore patients presenting VO are often more than 60 years old and present several comorbidities leading to a difficult management of antibiotic treatment.

Methods: We present prospective analyses of antibiotic treatment during an open blind, randomized controlled non-inferiority multicentre trial in 2 parallel groups of 6 and versus 12 weeks of treatment. We describe the treatment according to the micro organism involved and the presence of infective endocarditis.

Results: 359 patients were randomized, 8 patients were secondarily excluded. At baseline 69% were male with a mean age of 61 ±SD years old. At diagnosis, 52% of patients were febrile and 68% of blood culture were positive. Infective endocarditis was present in 20% of cases. Main bacteria involved were *Staphylococcus aureus* (41%), Coagulase negative *Staphylococci* (15%) and *Streptococcus non enterococcus* (18%).

Overall, the median duration of intravenous administration was 20.8 days (IQR, 7-27 days). The antibiotic treatment was administered parenterally for 0 to 7 days in 93 episodes (26.5%), 8 to 14 days in 89 episodes (25.4%), and for more than 15 days in 171 episodes (48.5%). No significant difference in failure rate was found between patients treated intravenously for less than one week.

Rifampicin was the most prescribed antibiotic when *Staphylococcus aureus* was involved and significantly more than for other bacteria (87.6% vs 49% ; p<0.001) as aminoglycosides (74.5% vs 54.9% ; p<0.001), fluoroquinolones (83.4% vs 43.2% ; p<0.001) and methicillin (75.9% vs 15.0% ; p<0.001).

Concerning *Streptococcus spp* antibiotics most prescribed were aminopenicillin 92.1%, rifampicin was less prescribed than for other micro organism (44.4 vs 69.4% ; p<0.001).

Concerning global cure rifampicin did not have a significant effect (p=0.617).

During infective endocarditis most frequent antibiotics prescribed with a significant difference were aminoglycosides (80.4% vs 59.7% ; p=0.005) and aminopenicillin (50% vs 29.2% ; p=0.004).

Most frequent bitherapy was fluoroquinolones and rifampin (79.1%)

Twenty-nine patients were intolerant to antibiotic treatment. But none antibiotic have a significant specific toxicity, vancomycin was responsible for 21.1% of adverse events (vs 12.3% ; p=0.06).

In the intention to treat analysis, cure recovery rates in the 6 weeks treatment group and in the 12 weeks treatment groups were respectively 91% (159/171) and 91% (160/176) with a no significant

difference (p : 0.001).

Conclusions: In this large trial concerning VO, the length of parenteral antibiotic treatment did not impact the outcome, fluoroquinolon and rifadin remain the main association with an excellent outcome, infective endocarditis did not impact the outcome.