AMPICILLIN/SULBACTAM ASSOCIATION: PHARMACOKINETIC AND THERAPEUTIC EFFICACY STUDIES

Antonia *Poiată**, V.*Luca***, Lucia *Grigore***, V.*Munteanu****, Daniela *Diculencu**, E.*Diaconu*****, Maria *Buiuc****, Roxana *Gheorghiu**, D.*Buiuc**

*Department of Microbiology
**Clinic of Infectious Diseases, University of Medicine and Pharmacy
***SC Antibiotics SA
****Antibiotics Research Center, Iaşi

Use of beta-lactamase inhibitors in combination with other hydrolysable beta-lactam antibiotics is an actual strategy to overcome beta-lactamase mediated resistence. The increase of percentage of beta-lactamase producing bacteria has threatened the continued efficiency of ampicillin association with sulbactamm effectively restores the antimicrobial activity against many resistent pathogenis. The introduction in therapie of clavulanic acid was followed by the development of other beta-lactamase inhibitors, with suicide function, such subactam and tazobactam. The clinical efficacy and safety in administration of ampicillin plus sulbactam combination (A/S) were studied in 10 patients, 5 men and 5 women (the medium age - 43 years) which received 2 g A and 1 g S/ day. Antibiotics were administered i.m. for a minimum 5-7 days. After single dose of 500 mg A and 250 mg S, maximal seric and urinary concentrations (obtained at 1 h, respectively 3 h after administration) were efficiently with superior values than MIC of many beta-lactamase producing strains currently implicated in infections. The synergy observed in vitro was confirmed in clinical use. The clinical response was favourable in 9 patients, with eradication of initially pathogenis. No related adverse events. Ampicillin plus sulbactam were efficacious and safe in lower respiratory tract infections, urinary and billiary infections, meningitis, caused by ampicillin-resistent bacteria.