

Wound Infections with Multi-drug Resistant Bacteria

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Abstract

Introduction: Wound infections remain a public health problem, despite the progress made on improving surgical techniques and antibiotic prophylaxis application. Misuse of antibiotics to prevent bacterial infections leads to increased bacterial resistance and their dissemination.

Material and Methods: The study refers to 470 samples taken from wound infections of which only multi-drug resistant strains were selected for study, using two special culture mediums (Metistaph-2 for methicillin-resistant staphylococci and ESBLs-Agar for extended-spectrum betalactamases secreting bacteria). Sensitivity of these strains was tested using the diffusion method.

Results: Of all studied samples, a rate of 27.6 bacterial strains showed multi-drug resistance. Among them stood primarily *Staphylococcus aureus*; both MRSA strains and ESBL Gram negative bacteria studied showed high resistance to aminoglycosides, quinolones, third generation cephalosporins and low to fourth generation cephalosporins. No vancomycin-resistant nor vancomycin-intermediate *Staphylococcus aureus* strains were isolated.

Conclusions: Knowing the antibiotic resistance is very useful in antibiotic “cycling” application, avoiding this way the emergence of increased resistant strains.

Key words: multi-drug resistance, methicillin-resistant *Staphylococcus aureus*, extended spectrum betalactamases

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