

TITLE: INCIDENCE OF RESISTANT MICROORGANISMS ON SKIN LESIONS OF THE HOSPITALIZED PATIENTS

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ABSTRACT:

Skin infections are common in hospitalized patients because the lesions promote loss of skin integrity by facilitating the entry of the normal microbiota and other microorganisms in the environment. Thus, the objective of this work was to verify the incidence of resistant microorganisms in different skin lesions of patients of a hospital. Were collected from 18 patients lesions. The samples collected with swabs and after spread in culture media (MaCconkey Agar, Mannitol Salt, Blood, Soy Tryptone, Cetrimide and Saboraud with chloramphenicol) and incubated at $36 \pm 1^{\circ}\text{C}$. Isolated colonies were identified with gram staining and biochemical tests. The susceptibility test was performed by the disc diffusion method described by Kirby-Bauer. The results showed 21 strains of Gram positive bacteria (2 *Staphylococcus aureus*, 14 *Staphylococcus* negative coagulase, 4 *Corynebacterium* sp. and 1 *Staphylococcus epidermidis*) and 13 Gram negative (5 *Pseudomonas aeruginosa*, 1 *Acinetobacter baumannii*, 1 *Escherichia coli*, 1 *Enterobacter aerogenes*, 1 *Klebsiella pneumoniae*, 1 *Burkholderia cepacia*, 1 *Stenotrophomonas maltophilia*, 1 *Citrobacter koseri* e 1 *Enterobacter* sp.). Of the 21 strains of Gram positive bacteria 20 were resistant to Penicillin, 18 to Oxacillin and Erythromycin. The most (76.20%) of the strains showed resistance to 7 to 12 different antibiotics. Of the 13 strains of Gram negative bacteria, 12 were resistant to ampicillin, 10 to ciprofloxacin and 9 to ceftiofur and nitrofurantoin. The most (61.50%) of

these strains presented resistance from 7 to 11 different antibiotics. The susceptibility profile demonstrated that Gram positive bacteria were more sensitive to Nitrofurantoin, Tetracycline and Ampicillin and Gram negative bacteria Tetracycline, Imipenem, Amikacin and Aztreonam. The results confirm that in skin lesions Gram positive bacteria are more prevalent and that resistance of the strains is related to oral antibiotics used both in the hospital and in the community. Furthermore, it can be concluded that the multidrug resistance found for the isolated strains may be a problem for the control of infections in skin lesions, since a high number of strains were resistant to more than 7 antibiotics. Thus, the administration appropriate antibiotics in hospitalizations and in the community, can avoid the development of strains resistant to different antimicrobial drugs and consequently contribute to effective treatment of these infections.

Keywords: Nosocomial Infection; Skin Lesions; Resistance to antibiotics; Microorganisms.

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