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Antimicrobial susceptibility of udder pathogens isolated from dairy herds in the west littoral region of Uruguay(2002) *Acta Veterinaria Scandinavica*, 43 (1), Pages 31-41. Cited 3 times.**Abstract**

A total of 522 strains belonging to streptococci, enterococci and staphylococci isolated from sub-clinical and clinical cases of bovine mastitis from the west littoral region of Uruguay were analysed for their susceptibility to several antimicrobial agents. The susceptibility patterns were studied by agar disk diffusion methods (ADDM) and broth micro-dilution to determine the minimum inhibitory concentration (MIC). The concentration that inhibits 90% (MIC₉₀) of the analysed strains reported in micrograms per millilitre, for *Staphylococcus aureus* were >8, 8, ≤0.5, ≤4, ≤1, ≤0.5, >64, ≤0.25, 0.5, ≤1 and ≤1 to penicillin, ampicillin, oxacillin, cephalotin, gentamicin, erythromycin, oxitetracycline, enrofloxacin, trimethoprim/sulfamethoxazole, neomycin, and clindamycin, respectively. Coagulase-negative staphylococci (CNS) had different values for penicillin (4) and ampicillin (2), while the other antimicrobial agents had the same MIC₉₀ values as reported for *S. aureus*. The MIC₉₀ values for streptococci were 0.12, 0.25, ≤4, 16, ≤0.25, 0.5, 0.25 for penicillin, ampicillin, cephalotin, gentamicin, erythromycin, oxytetracycline and trimethoprim-sulfamethoxazole, whereas MIC₉₀ for enterococci were 4, 4, 4, ≤0.5, 2, >8 for penicillin, ampicillin, gentamicin, erythromycin, oxytetracycline and trimethoprim-sulfamethoxazole, respectively. Of 336 strains of *S. aureus*, 160 (47.6%) were resistant to penicillin. For 41 CNS strains, 10 (27%) presented penicillin-resistance. All the streptococcal strains were susceptible to penicillin, while 3 (7%) of the 43 enterococcal strains were resistant. Non significant statistical differences were found between the results obtained by ADDM and broth micro-dilution for classifying bacterial isolates as susceptible or resistant according to the National Committee of Clinical Laboratory Standards.

Author Keywords

Bacteria; Cow; Mammary gland; Resistant; Sensitive

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