EVALUATION OF HERBAL AND CONVENTIONAL ANTIBIOTICS AGAINST STAPHYLOCOCCUS COAGULASE POSITIVE ISOLATES OF GOATS AND SHEEP MASTITIS

Pinheiro, M.N.S.¹, Lima, L.H.S.¹, Nascimento, J.S.¹, Silva, K. P. C.¹, Silva, T. B. C.¹

¹ UFAL - Federal University of Alagoas, Campus Arapiraca, Viçosa Teaching Unit (São Luiz Farm, n/n - countryside - 57700-000 - Viçosa - AL - Brazil).

Abstract:

Antibiogram is a technique that determines the bacterial sensitivity in vitro against antimicrobials, possessing importance due to increased resistance of bacteria. Objective to study the efficacy of herbal and conventional antibiotics in Staphylococcus coagulase positive isolates of mastitis in sheep and goats. Were studied herds of goats and sheep for the production and marketing of milk and sheep in the production and marketing of meat in the Wild and Forest Area in Alagoas. Identified clinical and Subclinical Mastitis in sheep and goats by methods of screened mug and California Mastitis Test (CMT). Positive milk samples were subject to microbiological diagnosis and isolated bacteria of the genus Staphylococcus sp. were subjected to the coagulase test. Classified as coagulase positive samples were subjected to in vitro susceptibility testing with herbal antibiotic, Cupania impressinervia Acev. - Rodr (500μg), Ipomoea purga (500μg), Zanthxylum rhoifolium Lam. - Rutaceae (500μg), Mabea piriri Aubl. (500 μg) and conventional, Erythromycin (15 μg), Gentamicin (10 μg), penicillin (10 μg), Sulfa + Trimethoprim (25 μg), Cephalothin (30 μg) by the method of dissemination of antimicrobial discs. It was observed in samples of caprine mastitis, 25% sensitivity to herbal remedies Cupania impressinervia Acev. - Rodr and Mabea piriri Aubl. and 16.67% to herbal remedies Ipomoea purga e Zanthxylum rhoifolium Lam. - Rutaceae, in the most conventional antimicrobial effect was Gentamicin (91.67%) followed by Sulfa + Trimethoprim (75%), increased resistance to antimicrobial when was penicillin (70.83%). Detected in sheep mastitis samples 100% of sensitivity to phytherapeutic Cupania impressinervia Acev. - Rodr, followed by Mabea piriri Aubl. (70%), the herbal Zanthxylum rhoifolium Lam. - Rutaceae and Ipomoea purga were effective in vitro against 65% and 60%, respectively. Among the most effective conventional antimicrobial were Gentamicin (95%) and Sulfa + Trimethoprim (90%). Samples of caprine mastitis in vitro showed greater resistance profile against the antimicrobials tested than the strains isolated from cases of mastitis in sheep due to treatments performed in the species. The phytherapeutic Cupania impressinervia Acev. - Rodr stood out as a possibility for the antimastitico treatment, reducing the resistance of this bacterium and consequently the presence of residues in milk.

Keywords: antimicrobial, the mammary gland, treatment.