

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

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### 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), *Zanthoxylum 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 *Zanthoxylum 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 phytotherapeutic *Cupania impressinervia* Acev. - *Rodr*, followed by *Mabea piriri* Aubl. (70%), the herbal *Zanthoxylum 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 phytotherapeutic *Cupania impressinervia* Acev. - *Rodr* stood out as a possibility for the antimastítico treatment, reducing the resistance of this bacterium and consequently the presence of residues in milk.

**Keywords:** antimicrobial, the mammary gland, treatment.