

A COMPARATIVE EVALUATION OF ANTIMICROBIAL POTENCY OF SOME HERBAL EXTRACTIONS AND ANTIBIOTICS AGAINST *PSEUDOMONAS SPP.*

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SUMMARY

The aim of this study was to evaluate *in vitro* susceptibility to commonly used antibiotics and to some herbal extractions for several *Pseudomonas spp.* strains isolated from dogs with otitis externa. *Pseudomonas spp.*, especially *P. aeruginosa*, are usually associated with chronic otitis externa and due to its remarkable antibiotic-resistance represent a problem of increasing significance in veterinary dermatology.

According to our results, susceptibility of *Pseudomonas spp.* to most antimicrobials was relatively poor, as all the isolates tested were simultaneously resistant to different antimicrobial agents (multiresistance): chloramphenicol, streptomycin, kanamycin, neomycin, erythromycin, doxycycline, gentamicin, tetracycline, oxitetracycline, sulphatrimethoprim, oxacillin, amoxicillin, with or without clavulanic acid, ampicillin, cephalexin, enrofloxacin. Only ciprofloxacin was able to inhibit these strains growth.

As to the herbal extractions, we observed that the essential oils obtained from *Thymus vulgaris L* and *Salvia officinalis* seemed to manifest bacteriostatic and bactericidal activity against *Pseudomonas spp.*

These data suggest the potential application of some herbal preparations alone or in combination with antibiotics for the topical treatment of otitis externa associated with *Pseudomonas spp.* Further investigations regarding the *in vitro* and *in vivo* toxicity should be conducted in order to develop such products.

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