

The influence of topical unsaturated fatty acids and essential oils on normal and atopic dogs

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Abstract

Seven dogs with atopic dermatitis and five normal dogs were treated with a spot-on containing essential oils and unsaturated fatty acids once weekly for 8 weeks. Seven more atopic dogs received a daily spray containing similar ingredients. In all dogs, transepidermal water loss (TEWL) was measured before and after treatment with a closed chamber device. In atopic dogs, a validated lesion score (Canine Atopic Dermatitis Extent and Severity Index, CADESI) was determined and pruritus was assessed with a visual analogue scale before and after treatment. The mean CADESI scores in atopic dogs decreased with the spot-on from 25.1 to 15.3 ($p=0.0043$) and with the spray from 29 to 6 ($p=0.0366$). Similarly, the pruritus scores decreased from 3.1 to 2.1 with the spot-on ($p=0.266$) and from 2.3 to 1.3 with the spray ($p=0.0177$). There was a significant difference between the TEWL values of healthy and those of atopic dogs on the abdomen ($p=0.0181$) and back ($p=0.0123$). TEWL decreased significantly on the back after treatment with the spray ($p=0.016$), on the abdomen the decrease was not quite statistically significant ($p=0.078$). Adverse effects were not observed. These results indicate that topical fatty acids and essential oils are a useful treatment option for canine atopic dermatitis.

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