

INTRODUCTION

Canine atopic dermatitis (CAD) is defined as a "genetically predisposed inflammatory and pruritic allergic skin disease with characteristic clinical features".¹ Pruritus is the most important sign. Although no reliable prevalence and incidence data are available, CAD is considered a skin disease seen commonly by general practitioners and veterinary dermatologists.² The aim of this study was to evaluate the efficacy of a commercial complete dry expanded diet in the management of dogs diagnosed with canine atopic dermatitis.

MATERIALS AND METHODS

For 2 months a fish and rice based commercial complete dry diet*, enriched with EPA/DHA, was fed to 30 privately owned dogs diagnosed with CAD. The diet did also include a mix of ingredient (curcumin, aloe vera, vitamin C, taurine) shown to promote healing³ as well as high levels of biotin, niacin and pantothenic acid to promote the skin barrier effect.⁴

The dogs showing a lack of compliance with the feed and receiving any pharmacological interventions for CAD were excluded from the study. They were followed by private-practitioners from 12 clinics in France and Belgium and were assessed for 2 types of skin lesions (figure 1) such as erythema/papules and lichenification/excoriation on 8 body sites (ears, lips and chin, digits, abdomen and groin, axilla), as well as pruritus and digestive signs at 0, 30 and 60 days.

The intensity of the lesions in all sites as well as the pruritus was assessed with a 3-point scale (0 = none; 1 = moderate; 2 = high). The criteria "digestive signs" was evaluated with 2-point scale (0 = none; 1 = present). The score of sites for both type of lesion were added to obtain a global score for each dog. Non parametric tests (Kruskal Wallis, Chi2 test) were used to analyse the 18 parameters over time. A general linear model was used to explain the interaction between time, sex and each of the 18 parameters.



Figure 1: typical lesions observed in a white boxer included in the study (a/ abdomen and groin, b/ carpus, c/ digit)

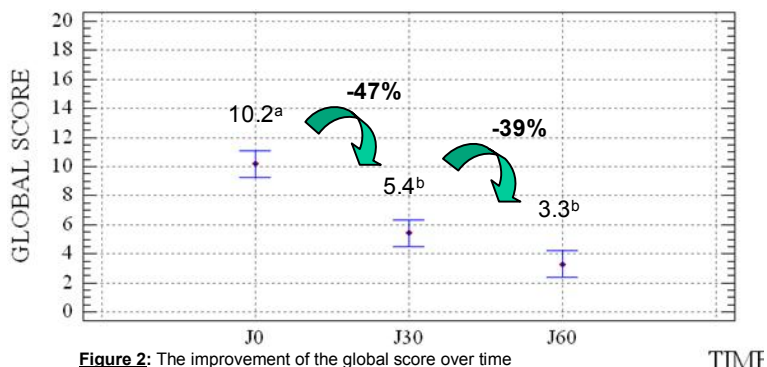


Figure 2: The improvement of the global score over time

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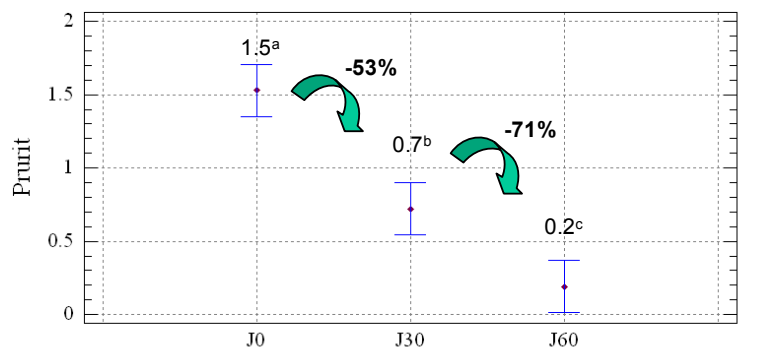


Figure 3: The improvement of the pruritus score over time

TIME

Legend: Number with different letter are significantly different

RESULTS

Dogs consumed their diet adequately throughout the study. Thirty dogs were included in the study. Twenty-six dogs, representing 15 females and 11 males from 21 different breeds, completed the study. The 4 remaining dogs left the study for reason unrelated to the diet.

The global score (figure 2) improved significantly (-47%, $P_{\text{Kruskal Wallis}} < 0.001$) between 0 and 30 days and continued to improve between 30 and 60 days (-39%, NS). The pruritus score (figure 3) decreased significantly between 0 and 60 days ($P_{\text{GLM}} < 0.001$): 10 dogs (38.4%) were cured (global score = 0) after 30 days and 22 (84.6%) after 60 days. Concerning the lesion "erythema/papules", the scores at every body sites were decreased significantly after 2 months. For "lichenification/excoriation", there was not significant improvement for all body sites except the axilla (-42% ($P < 0.001$)) between 0 and 30 days; -27.5% (NS) between 30 and 60 days). The digestive signs did not show any changes after 2 months. Finally, there was no sex effect and no significant interaction between time, sex and each parameter.

CONCLUSION

Clinical signs and pruritus were significantly reduced in atopic dogs following the introduction of the diet evaluated in this study.



Figure 4: The improvement of the different dermatological parameters of a dog included in the study over 60 days (a/ 0 day, b/ 30 days, c/ 60 days)

REFERENCES

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