Topical therapy with a spot-on and a hydrating spray containing essential fatty acids and other plant-extracts delays the injection of lokivetmab in atopic dogs: a multicentric study

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INTRODUCTION

Lokivetmab (Cytopoint®: Zoetis, Louvain la Neuve, Belgium), a treatment for canine atopic dermatitis, requires approximately a monthly administration at the dose of 1 mg/kg in the European Union[1]. A previous controlled study suggested that associating lokivetmab with topicals for one month results in a four-day prolongation prior to next flare requiring another lokivetmab injection[2]. This study aims to evaluate the sparing effect on the use of lokivetmab when combining it with topicals over a period of several months.

MATERIALS & METHODS

Dogs presenting with a non-seasonal atopic dermatitis stabilized by lokivetmab alone were enrolled (***Figure 1***). Stabilization was validated when five consecutive intervals between injections fluctuate by less than five days. From enrollment, dogs received a combination of lokivetmab (1 mg/kg, subcutaneous) and topicals (ATOP 7® spot-on weekly and ATOP 7® Hydra Spray twice weekly: Dermoscent®, LDCA, Castres, France). Dogs were then monitored by clinicians during five visits at each relapse requiring lokivetmab injection. Intervals between relapses were compared to the mean interval before inclusion. Pruritus (Visual Analog Scale, PVAS), Canine Atopic Dermatitis Lesion Index (CADLI) and cosmetic criteria (coat quality, skin hydration, scaling and odour, scale from 0-very bad to 4-normal for each criteria) were evaluated at each visit.
Statistical analysis were performed with one-way repeated measures ANOVA, using Prism v5 (GraphPad software).

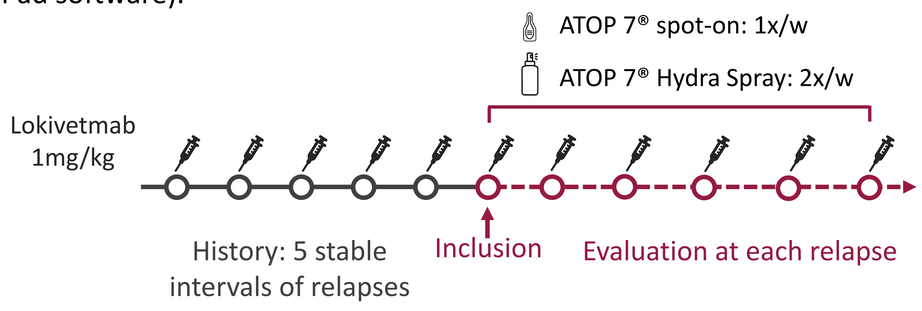

Figure 1. Study design

RESULTS

Seven dogs completed the study.
The period between flares was 31.2 days before inclusion and gradually increased to 41.9 days ($P < 0.01$, ***Figure 2***). Although the dogs included had their atopic dermatitis stabilized, with mild CADLI and pruritus scores at inclusion (6.4 and 3.3 respectively), CADLI tended to decrease over time to reach 5.1 (***Figure 3A***) and pruritus score was significantly reduced to 2.4 ($P < 0.05$) at the end of the study (***Figure 3B***).

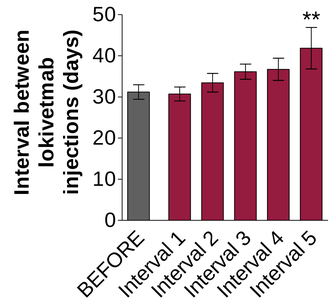

Figure 2. Intervals between relapses

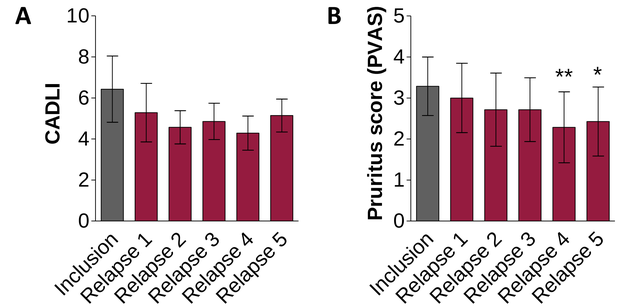

Figure 3. Evolution of CADLI and pruritus scores

Cosmetic criteria gradually improved during the study with significant increases in the criteria of coat quality (2.9 versus 3.7, $P < 0.01$, ***Figure 4A***), skin hydration (2.9 versus 3.7, $P < 0.001$, ***Figure 4B***) and scaling improvement (3.0 versus 3.6, $P < 0.001$, ***Figure 4C***). Odour score tended to improve (2.7 versus 3.6, ***Figure 4D***).

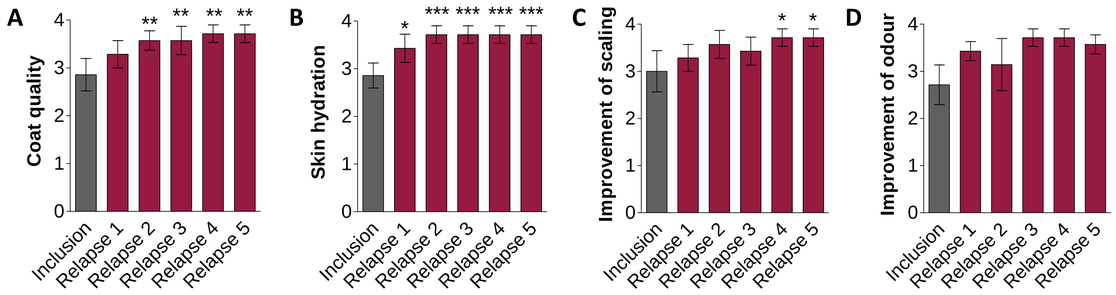

Figure 4. Evolution of cosmetic criteria

Both veterinarians and pet owners were very satisfied with the results (mean scores of 4,3/5 and 4,5/5 respectively, and no score below 4).

* $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$

CONCLUSION

This pilot study suggests that a multimodal management of canine atopic dermatitis combining for several months lokivetmab with topicals aiming at hydrating and reinforcing the skin barrier allows a significant sparing effect of lokivetmab and tends to reduce the severity of clinical signs.

REFERENCES

[1] Summary of product characteristics – Cytopoint. https://www.ema.europa.eu/en/documents/product-information/cytopoint-epar-product-information_en.pdf
[2] Bensignor, E. and Videmont, E. (2022), Weekly topical therapy based on plant extracts combined with lokivetmab in canine atopic dermatitis. Vet Dermatol, 33: 68-e22

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Data presented on the poster are slightly different from those published in the abstract book because another case lately completed the study.