

CLINICAL IMPROVEMENTS IN DOGS WITH ATOPIC DERMATITIS FOLLOWING ORAL ADMINISTRATION OF NUCLEOTIDES, GLYCOSAMINOGLYCANS AND ESSENCIAL FATTY ACIDS

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INTRODUCTION:

Nucleotides, glycosaminoglycans and omega-3 essential fatty acids (o3-EFAs) have been reported to improve skin health. More specifically, a recent *in vitro* study showed an enhanced fibroblast migration with a combination of nucleotides, hyaluronic acid (HA), dermatan sulphate (DS) and o3-EFAs.

Our objective was to study whether this combination could also be efficacious *in vivo* in client-owned dogs with naturally occurring canine atopic dermatitis (CAD).

MATERIAL AND METHODS:

- A total of eight dogs with confirmed CAD diagnosis received a daily oral administration of 40 mg/kg nucleotides, 0.9 mg/kg HA, 0.18 mg/kg DS and 76.3 mg/kg o3-EFAs (53.4 mg/kg EPA; 7.6 mg/kg DHA) for 30 days.
- Dogs were excluded if they had received o3-EFAs, glucocorticoids, oclacitinib, lokivetmab, cyclosporine, or glycosaminoglycans 8 weeks prior to the study onset.
- The responsible veterinarians assessed the **pruritus visual analog scale (pVAS)** before and after treatment.
- An analysis of variance (ANOVA) test was used for the comparisons between groups at different time-points. $P \leq 0.05$ was considered statistically significant.

RESULTS:

- A **significant reduction in the pVAS** ($p = 0.0011$) was seen between 0 (mean \pm SD = 8.05 ± 1.65) and 30 (mean \pm SD = 4.04 ± 2.22) days (Figure 1).
- No adverse effects were observed.

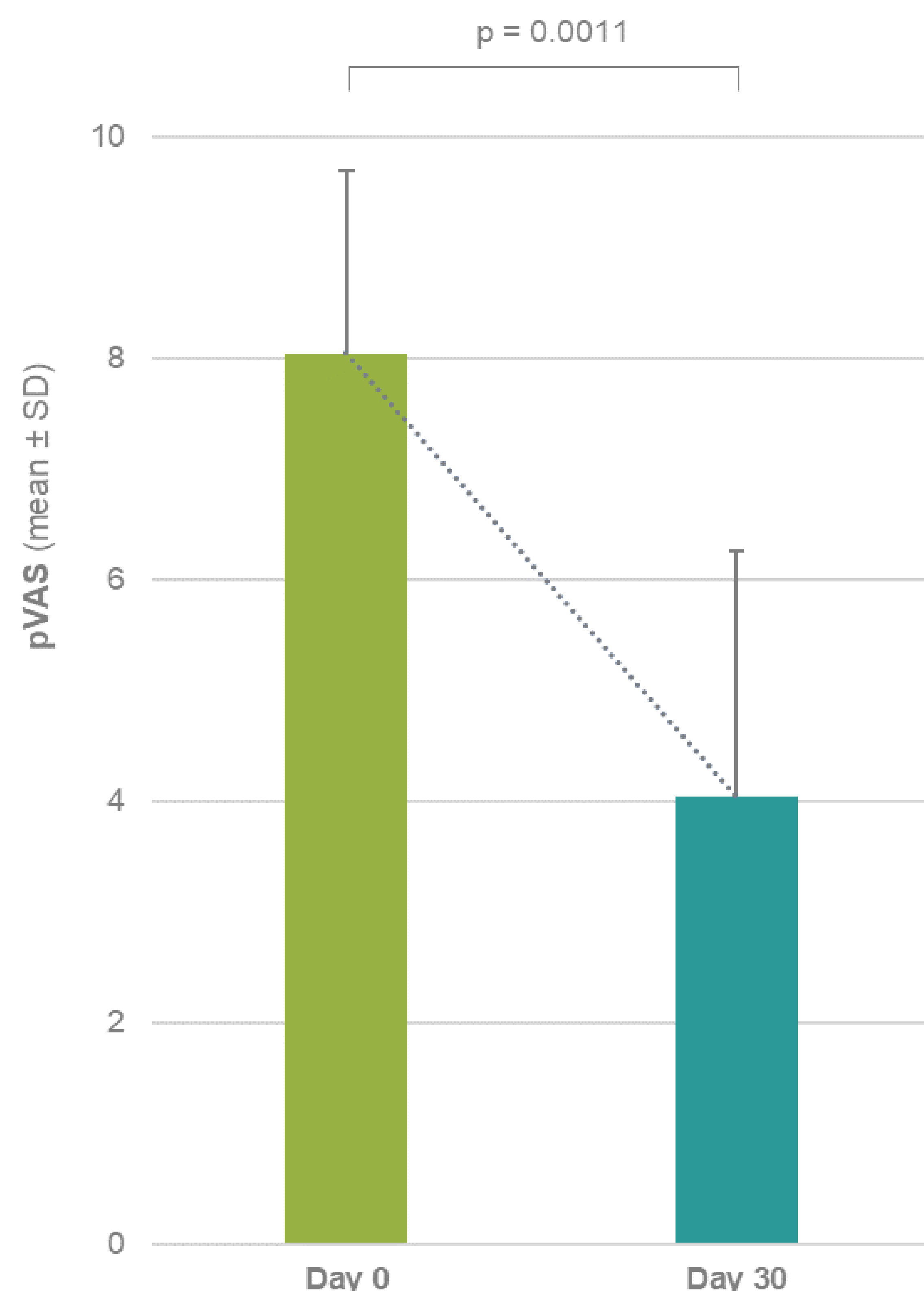


Figure 1. Changes in pVAS over time.

CONCLUSIONS:

In conclusion, although further studies are warranted, these observations suggest a possible beneficial effect of oral nucleotides with glycosaminoglycans and essential fatty acids in atopic dogs by acting on pruritus, which is the main clinical sign of CAD. The use of this combination might therefore be considered as part of the multimodal management strategy for CAD.

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