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EVALUATION OF ANTIBODY LEVELS AND CLINICAL RESPONSE TO TRANSDERMAL IMMUNOTHERAPY IN DOGS

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-68%	-43.5%	-53.8%	-2.42%
IGE — D. FARINAE	**IGE — RAGWEED**	**IGE — TIMOTHY**	**CADESI-4 / MONTH**
2292 → 732 EAU	200 → 113 EAU	195 → 90 EAU	95% CI [−3.27, −1.58]

ABSTRACT

This pilot study evaluated the immunologic and clinical response of dogs with atopic dermatitis to a transdermal immunotherapy cream containing dust mite (Dermatophagoides farinae), ragweed (Ambrosia artemisiifolia), and timothy grass (Phleum pratense) allergens. Six dogs with elevated allergen-specific IgE levels completed the study.

Serum IgE and IgG levels and CADESI-4 scores were measured at baseline and after one, three, and six months. Analysis used repeated-measures ANOVA with Tukey's HSD; CADESI-4 was modeled with linear mixed effects.

KEY FINDING

Statistically significant reductions in allergen-specific IgE across all three allergens ($p < 0.001$). IgG remained unchanged, consistent with desensitization rather than broad immunosuppression.

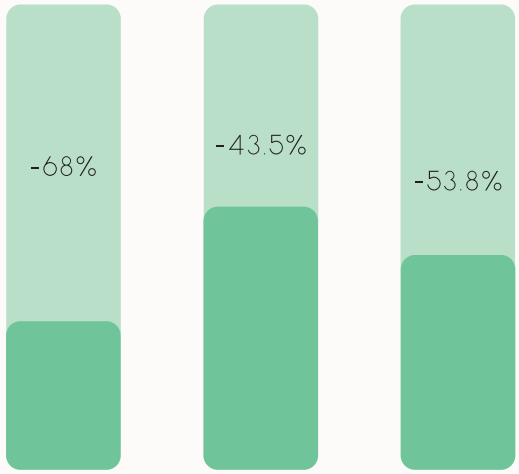
ANOVA confirmed significant differences in IgE levels over time ($p = 0.0015$). CADESI-4 lesion severity decreased by an estimated 2.42 points per month (95% CI [−3.27, −1.58]).

CONCLUSION

Transdermal immunotherapy reduced IgE levels and improved lesion severity in dogs with atopic dermatitis. Further research with larger samples and extended treatment periods is warranted.

FIGURE 1 — N = 6 · 6 MONTHS

REDUCTION IN SERUM IGE



STUDY DESIGN

