











Immunoallergological profile of atopic dogs from two regions of Portugal

INTRODUCTION

- · House-dust mites are the most common allergen species implicated in canine Atopic Dermatitis (cAD).
- **Dermatophagoides farinae** (Df) is the most prevalent allergen species involved in cAD worldwide.
- · By adjusting the panel of allergens to test, we can obtain more reliable intradermal tests (IDT) results, promoting a better response to allergen-specific immunotherapy.

OBJECTIVE

To evaluate whether there are different sensitization rates for a panel of environmental allergen species, assessed by IDT, among atopic dogs living in two regions of Portugal.

MATERIALS AND METHODS



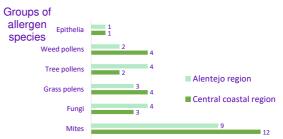
IDT with 23 environmental allergen extracts



The selection of tested allergen species should be based on their prevalence in the specific geographical region and on the immunoallergological profile of the patients living in each area.

RESULTS

Positive IDT in two regions of Portugal



Number of atopic dogs with positive IDT

In both groups, the highest sensitization rate was observed for house dust and storage mites. followed by pollen and fungal species.

Positive IDT for Dermatophagoides farinae



Atopic dogs living in the coastal center of Portugal showed a sensitization rate significantly higher to Df, when compared with those living in the Alentejo region (p=0.004).

These results may be explained by a geographical variability of that mite species prevalence - according to the acarological map of Portugal, Df is more frequent in the Portuguese homes, in the central coastal region (11.2%) than in the southern interior area (6.2%).

Future enlarged studies are needed to evaluate possible geographical variabilities for other allergen species, like fungi and pollens.

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REFERENCES

- Hensel, P., Santoro, D., Favrot, C., Hill, P., & Griffin, C. (2015). Canine atopic dermatitis: detailed guidelines for diagnosis and allergen. *BMC veterinar research*, 11, 196. https://doi.org/10.1186/s12917-015-0515-5
- Hill, P. B., & DeBoer, D. J. (2001). The ACVD task force on canine atopic dermatitis (IV): environmental allergens. Veterinary immunology and immunopathology, 81(3-4), 169-186. https://doi.org/10.1016/s0165-2427(01)00298-7
- Mapa acarológico, (2009), Rev Port Imunoalergologia, 17: 195-8
- Martins, L., Bento, O. & Inácio, F. (2016). Veterinary allergy diagnosis: past, present and future perspectives. Allergo Journal Int, 25(8):20-32

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