



POSTER PRESENTATION

Open Access

Clinical impact of molecular diagnosis in dog allergy

Silvia Uriarte Obando*, Joaquín Sastre Domínguez

From 5th International Symposium on Molecular Allergology (ISMA 2013)
Vienna, Austria. 6-7 December 2013

Background

Allergy to dog is a frequent cause of rhinitis or asthma. The prevalence of sensitization to different dog allergens is not well known.

Methods

We select 159 sensitized patients allergic to dog. Specific IgE measurement to dog allergens Can f 1, Can f 2, Can f 3 and Can f5 was performed by ImmunoCAP[®] and/or microarray ISAC[®] (ThermoFisher Scientific, Sweden), a value > 0,35 kU/L or >0,3 ISU was considered as positive, respectively. Association of Specific IgE measurements was done with presence and type of rhinitis or asthma.

Results

79% of patients had specific IgE to Can f1, 19% to Can f2, 12% to Can f3, and 35% to Can f5. 44% were monosensitized to Can f 1, 19.5% to Can f5 and 0.6% to Can f3. Can f1 was associated with persistent rhinitis (p 0.01), Can f3 with severity of rhinitis and asthma (p <0.01, p 0.01, respectively), and Can f5 to both persistence and severity of rhinitis (p 0.02, p >0.001, respectively). Sensitization to several allergens in patients (1, 2, 3 or 4) was associated with persistent asthma or rhinitis (p 0.04, p 0.01, respectively), and with moderate severity (p 0.03). Direct contact with dogs was associated with both, persistency and severity of rhinitis (p 0.02, p 0.03, respectively). The wheal diameters of skin test with commercial extract of dog were smaller in patients monosensitized to Can f 5.

Conclusion

Different patterns of sensitization to dog allergens that are commercially available, in patients with dog allergy can help us to predict the severity and persistence of symptoms as well as sensitization to a higher number of dog allergens. Interestingly, a high prevalence of monosensitization to Can f 5 was demonstrated. Can f 5 is an arginine esterase or prostatic kallikrein that is found

only in male dogs. This finding could be of clinical interest because may explain differences in development of symptoms when exposed to male or female dogs. Further studies are necessary to establish if different patterns of sensitization to dog allergens may have clinical consequences and response to immunotherapy.

Published: 17 March 2014

doi:10.1186/2045-7022-4-S2-P52

Cite this article as: Uriarte Obando and Sastre Domínguez: Clinical impact of molecular diagnosis in dog allergy. *Clinical and Translational Allergy* 2014 **4** (Suppl 2):P52.

Submit your next manuscript to BioMed Central
and take full advantage of:

- Convenient online submission
- Thorough peer review
- No space constraints or color figure charges
- Immediate publication on acceptance
- Inclusion in PubMed, CAS, Scopus and Google Scholar
- Research which is freely available for redistribution

Submit your manuscript at
www.biomedcentral.com/submit



Fundación Jiménez Díaz, Allergy Department, Madrid, Spain



© 2014 Uriarte Obando and Sastre Domínguez; licensee BioMed Central Ltd. This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/2.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. The Creative Commons Public Domain Dedication waiver (<http://creativecommons.org/publicdomain/zero/1.0/>) applies to the data made available in this article, unless otherwise stated.