

Prevalence of horses suspect of atopic dermatitis could be higher than that of insect bite hypersensitivity

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Introduction and objectives: Insect bite hypersensitivity is considered the most common allergic skin disease in horses, whereas the prevalence of atopic dermatitis is unknown. This retrospective study aimed to evaluate the prevalence of positive serum IgE antibodies against four groups of allergens: insects, pollens, mites and moulds.

Material and methods: Serum samples from 2,412 horses in Europe with a possible allergic disease were tested for IgE using ELISA technology.

Results: Two thousand and sixty-nine (85.78%) samples yielded positive results for at least one of the four groups of allergens.

From the 2,069 positive samples: 32.58% (674) were positive to allergens representing all the groups; 49.73% (1,029) were positive to insects, 84.73% (1,753) to mites, 65.80% (1,360) to moulds, and 75.80% (1,570) to pollens.

Only 39 (1.88%) samples were exclusively positive to insects.

The percentage of samples positive to insects was lowest from January to April (average 28.21%), and highest from May to October (average 50.48%). Positive samples for mites (76.41% to 98.46%) and pollens (61.76% to 86.79%) were more than 60%, and for moulds (50% to 80%) more than 50% throughout the year.

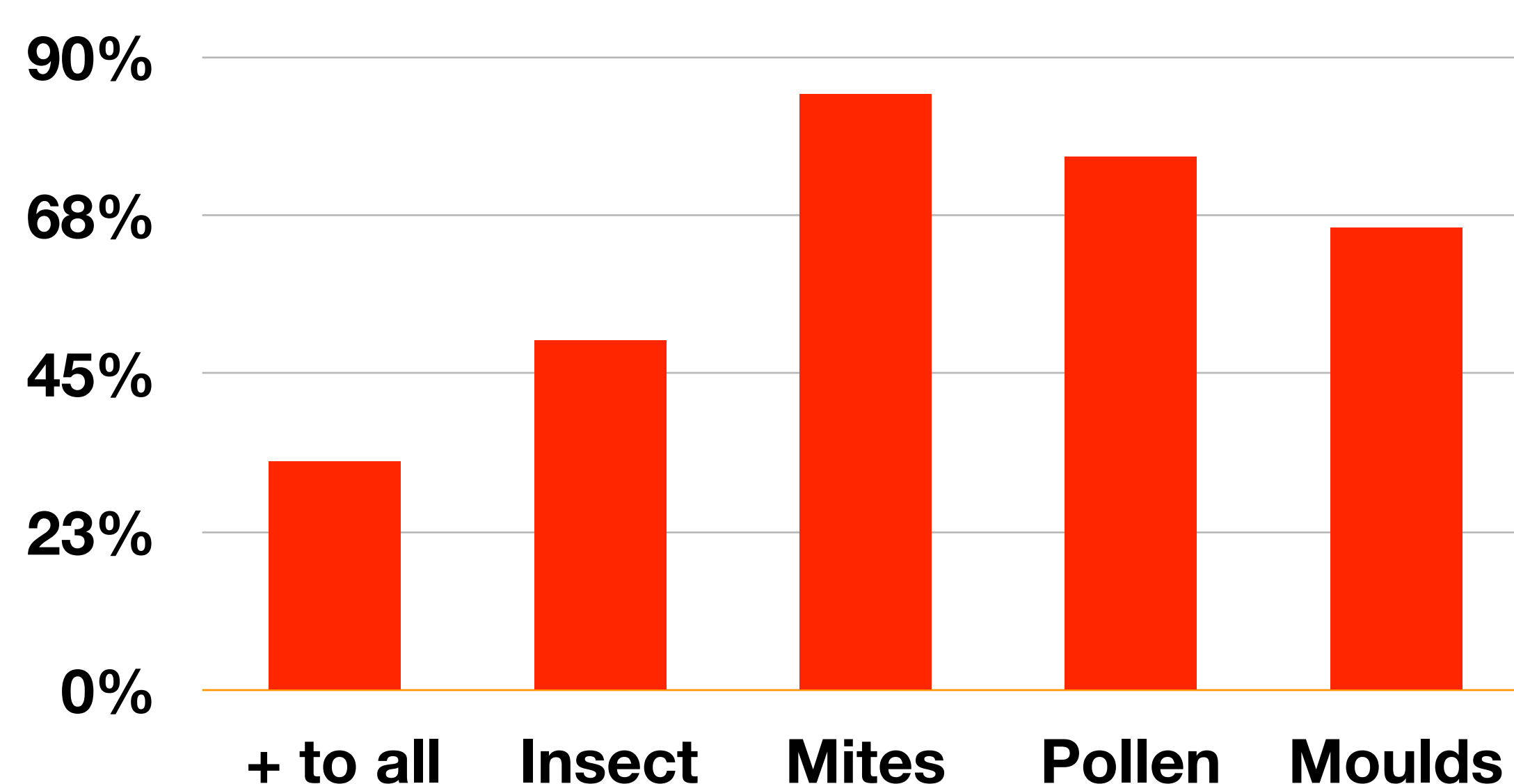


Fig 1- Prevalence of positivity for every group of allergens in the 2,069 positive samples

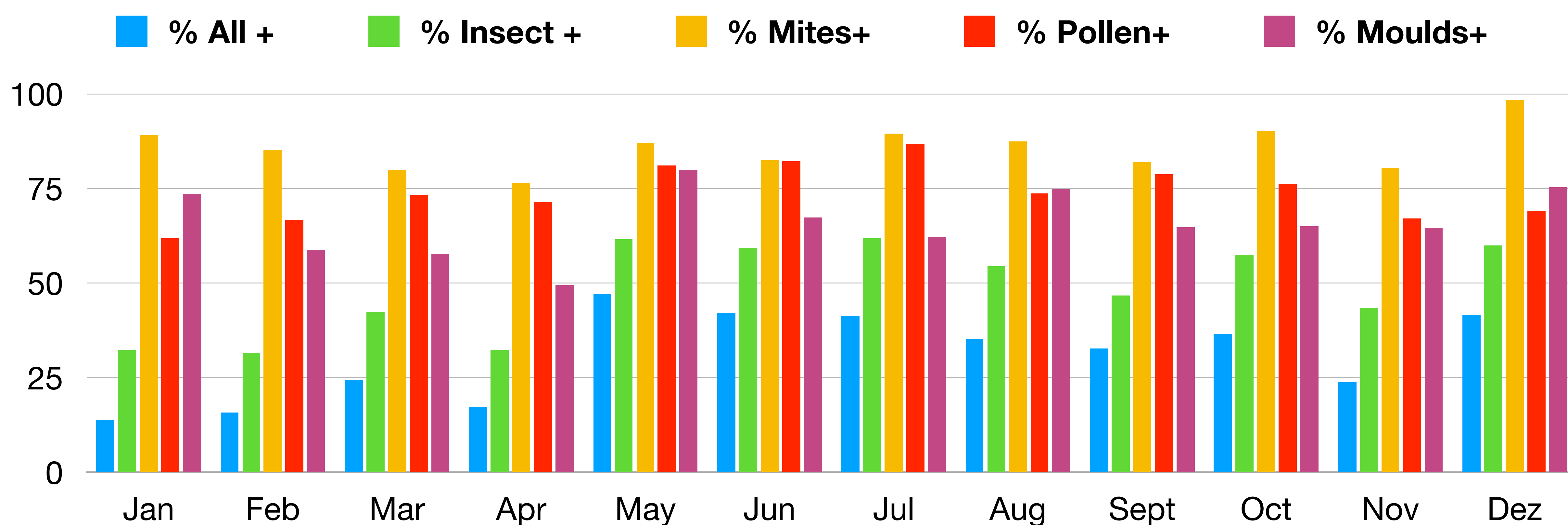


Fig 2- Prevalence of positivity for every group of allergens along the year

Discussion and conclusion: The prevalence of positive reactions was higher on a monthly basis for any of the three groups of aeroallergens than for insects.

Sole reactions to insects were rare.

The results suggest that the prevalence of horses suspected of having atopic dermatitis is higher than that of insect bite hypersensitivity and serum IgE reactive to both allergen groups is common.

Conflict of interest: All authors work for Laboklin