

Veterinary Dermatology / Early View

Letter to the Editor | [Full Access](#)

On the possible role of food allergy in chronic urticaria in racing horses

Janet D. Littlewood, Hilary A. Jackson 

First published: 09 December 2021

<https://doi-org.bibliosan.clas.cineca.it/10.1111/vde.13049>

We read with interest the letter by Favrot and Olivry¹ summarising the papers by Francqueville and Sabbah², and Volland-Franqueville and Sabbah³. However, we have some concerns regarding the interpretation of the reported findings.

Whilst food allergy is commonly suspected as the cause of urticaria in horses, it is rarely confirmed. There is a notable paucity of well-defined cases of equine food allergy in the peer review literature with only a few case reports and no good case series published. One case report described alopecia, not urticaria or pruritus, associated with ingestion of a feed additive, fulfilling the accepted criteria of resolution of clinical signs on an elimination diet and return of clinical signs on re-introduction of the additive, and further resolution on withdrawal.⁴ We are aware of only a single case report of equine urticaria related to food, which was associated with feeding dry garlic.⁵ The mechanisms involved in the rarely confirmed cases of food hypersensitivity in horses have not been characterised.

Environmental allergen extracts for intradermal testing in the horse are not well standardised and furthermore – to the best of our knowledge – there are no published studies standardising food extracts for intradermal testing in animals or demonstrating the validity of this technique in the context of confirmed cases of food allergy.

The studies summarised by this letter report positive intradermal reactions to crude allergens in these affected horses; no studies in control horses are described. The positive reactions to hay, straw and other forage items could well represent a hypersensitivity to environmental allergens including dust and forage mites and moulds, which are commonly implicated in equine atopic dermatitis,^{6, 7} or irritant reactions to crude extracts.

The dietary changes implemented may well have resulted in changes in environmental allergen concentrations, which would account for improvement in atopic patients. Additionally, there is no mention of the change of season, which is another reason why

these horses may have improved, again associated with reduction in environmental allergens to which they were sensitised. The absence of a relapse in clinical signs after the re-introduction of food items throws considerable doubt on the presumption that the cause of the chronic urticaria in these cases was actually the result of a food allergy, because documentation of deterioration or recurrence of clinical signs after dietary provocation is one of the pivotal requirements for the confirmation of the diagnosis of food allergy.

The validation of intradermal tests or serological tests for the investigation of potential food sensitivity in horses requires study of animals with a confirmed diagnosis made on the basis of resolution of dermatological signs after a period on a strict elimination diet, return of signs after provocative dietary challenge and subsequent resolution of signs back on the strict diet. Likewise, given the limited usefulness of Western blotting as a diagnostic methodology for canine food sensitivities,⁸ we would question the value of performing this on the sera of horses with chronic urticaria without a confirmed diagnosis of a food sensitivity. Until such studies are available, the results of these studies on urticaria in racehorses must be interpreted with caution.

References



- 1 Favrot C, Olivry T. On the possible role of food allergy in chronic urticaria in racing horses. *Vet Dermatol*. 2021. [Epub ahead of print] <https://doi-org.bibliosan.clas.cineca.it/10.1111/vde.12964>
[Wiley Online Library](#) | [Web of Science®](#) | [Google Scholar](#)

- 2 Franqueville M, Sabbah A. Chronic urticaria in sports horses. *Allerg Immunol (Paris)* 1999; **31**: 212– 213.
[PubMed](#) | [Google Scholar](#)

- 3 Volland-Franqueville M, Sabbah A. Recurrent or chronic urticaria in thoroughbred race-horses: clinical observations. *Eur Ann Allergy Clin Immunol* 2004; **36**: 9– 12.
[PubMed](#) | [Google Scholar](#)

- 4 Jubb TF, Graydon RJ. Telogen defluxion associated with hypersensitivity causing alopecia in a horse. *Aust Vet J* 2007; **85**: 56– 58.
[Wiley Online Library](#) | [CAS](#) | [PubMed](#) | [Web of Science®](#) | [Google Scholar](#)

- 5 Miyazawa K, Ito M, Ohsaki K. An equine case of urticaria associated with dry garlic feeding. *J Vet Med Sci* 1991; **53**: 747– 748.
[Crossref](#) | [CAS](#) | [PubMed](#) | [Web of Science®](#) | [Google Scholar](#)

- 6 Rendle DI, Durham AE, Wylie CE, et al. Results of intradermal testing for the investigation of atopic dermatitis and recurrent urticaria in 50 horses in the south of England. *Equine Vet Educ* 2010; **22**: 616– 622.
[Wiley Online Library](#) | [Web of Science®](#) | [Google Scholar](#)

7 Loeffler A, Herrick D, Allen S, et al. Long-term management of horses with atopic dermatitis in southeastern England: a retrospective questionnaire study of owners' perceptions. *Vet Dermatol* 2018; **29**: 526- e176.

[Wiley Online Library](#) | [PubMed](#) | [Web of Science®](#) | [Google Scholar](#)

8 Favrot C, Linek M, Fontaine J, et al. Western blot analysis of sera from dogs with suspected food allergy. *Vet Dermatol* 2017; **28**: 189-e42.

[Wiley Online Library](#) | [PubMed](#) | [Web of Science®](#) | [Google Scholar](#)

[Download PDF](#)

About Wiley Online Library

Privacy Policy

Terms of Use

Cookies

Accessibility

Publishing Policies

Help & Support

Contact Us

Training and Support

DMCA & Reporting Piracy

Opportunities

Subscription Agents

Advertisers & Corporate Partners

Connect with Wiley

The Wiley Network

Wiley Press Room