

**Clinical Case: Canine DRM Dermatosis** 

This case report demonstrates the usefulness of PURINA® PRO PLAN® VETERINARY DIETS DRM Dermatosis in the nutritional management of flea allergy dermatitis in the dog

# A case of flea allergy dermatitis in a male English bulldog

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## Details and case history

Bernie was a three-year-old intact male English bulldog. His weight was 26.9 kg, with normal body condition. Bernie's owners had acquired him from a professional breeder at the age of two and a half months.

He lived in a flat and was walked three or four times a day. His usual diet consisted of supermarket dry food with a few extras (table scraps).

Treatment for external and internal parasites was given in the summer only. His dermatological history indicated the appearance of an interdigital furuncle on the left front paw six months previously. This had been treated successfully with 15 mg/kg amoxicillin-clavulanate morning and evening for one month.

## **Case history**

The current symptoms had been present for two months. Bernie had already been seen for this condition once, three weeks previously: he presented with erythema and crusts on his back and ongoing pruritus, characterised mainly by rubbing, sometimes even tearing the skin. The lesions had gradually extended to the lower back.

The pruritus had been getting worse, scoring 8/10 for frequency and 6/10 for intensity.

Combing revealed no evidence of adult parasites, but did find flea faeces. Microscopic examination of skin scrapes conducted on the lesions revealed bacteria (cocci) and phagocytosis.

The clinical presentation, absence of recent treatment for external parasites, presence of flea faeces, and microscopic examination allowed a diagnosis of flea allergy dermatitis (FAD) complicated by a bacterial superinfection.

Selamectin (STRONGHOLD®) was applied as a pour-on, clindamycin (ZODON®) was given at a dose of 11 mg/kg once a day and chlorhexidine (PYODERM®) was prescribed for three weeks.

## Visit on DO



Bernie's general condition was very good. He no longer had any crusts, only erythema on his back, flanks and abdomen, in the fold above his nose and, less severely, on his scrotum. Bernie also showed some excoriations following pruritus, which had improved but not stopped completely. There were scattered **bald patches** across his lower back.

The pruritus was rated 4/10 for frequency and 5/10 for intensity.

The diagnostic hypothesis at this stage was that localised inflammation related to FAD remained, but the question was whether the superinfection had been completely eliminated.

Another combing revealed no flea faeces, adult fleas or eggs. On microscopic examination, the skin scrapings performed on the dorsolumbar lesions showed no further infection. A tape test in the nasal fold revealed nothing of significance, only a large quantity of corneocytes: local treatment with chlorhexidine eliminated the infection at this location too.

The final diagnosis was therefore one of hypersensitivity (FAD) without infectious complications.



Treatment for external parasites was recommended using oral **afoxolaner** (NEXGARD®), i.e. a systemic drug active against fleas and ticks.

Feeding with **Canine DRM Dermatosis®** was also advised, with a dietary recommendation based on Bernie's weight and activity.

In consultation with the owner, we decided **not to treat the pruritus symptomatically**, in order to demonstrate the effect of the diet (the pruritus had already reduced greatly with treatment of the secondary skin infection).

An appointment was made for the following month.

### Visit on D0 + 1 month



Bernie was presented again 25 days later.

His progress was good according to the owner, and macroscopic examination of the skin appeared to confirm this: the **erythema** which persisted on D0 had **largely diminished** on the lower back, axillary folds, flanks and abdomen; it remained present on the chin and, less severely, between the main pad and digital pads of one front paw. **The hair** had largely started to regrow, except in two places on the back.

The pruritus was now rated only 2/10 for both frequency and intensity.

Combing did not reveal any signs of parasite infestation. Cytology conducted on the chin and between the pads using a tape test did not reveal a skin infection but a large quantity of corneocytes, evidence of the still marked changes at those locations.

**No adverse events** had been observed by the owner as the change of diet had been gradual: the stools were normal and only two episodes of vomiting had occurred during the past month, but the owner attributed these to the talcum powder applied in the nasal fold.

In view of its positive effect on the pruritus and lesions, the overall effectiveness of Canine DRM Dermatosis<sup>®</sup> is good.

Only the NEXGARD<sup>®</sup> treatment was readministered. An appointment was made for the following month.

#### Visit on D0 + 2 months



Ten weeks actually elapsed between the first visit and the last, during which time Bernie was fed **Canine DRM Dermatosis**<sup>®</sup>.

The hair had completely regrown, covering the whole body. **No erythema** remained on the body: back, flanks, axillary folds, abdomen and scrotum had regained a healthy pink colour which the owner had not seen for a long time. The erythema on the whisker pads, which had still been fairly significant at D0 + 1 month, was now much reduced.

#### Bernie no longer showed any signs of pruritus.

The investigator and the owner therefore considered the overall effectiveness of **Canine DRM Dermatosis**<sup>®</sup> to be very good.

With management of the superinfection, the FAD-related pruritus had returned to a moderate level, scoring **4/10** for frequency and **5/10** for intensity. We were therefore able to manage the skin inflammation present at this stage in an ethical way thanks to the ingredients of **Canine DRM Dermatosis®**, especially its high levels of specific nutrients (essential fatty acids) which we now know are able on their own, when given for at least two months<sup>1</sup>, to restore the skin barrier<sup>2</sup> and help fight skin inflammation by a steroid sparing effect<sup>3</sup>.

The pruritus decreased steadily with no other intervention except the treatment for external parasites. After two months, the pruritus had completely disappeared and the lesions were markedly improved.

The stools were reported as normal, even during the period of dietary transition.

#### Conclusion

In conclusion, Canine DRM Dermatosis<sup>®</sup> has benefits for allergic dermatosis, especially flea allergy dermatitis; for the owner, it had a spectacular effect on the skin barrier and skin inflammation.

The owner would recommend Canine DRM Dermatosis<sup>®</sup> because, besides being effective, the change in diet did not cause any changes in feeding behaviour, except possibly for improved **satiety** (sometimes Bernie will eat excessively when food is freely available) although he is not generally greedy. In particular, his coat is **soft** and **silky** as it has rarely been before, and he no longer shows any signs of pruritus, including in his front paw, which used to bother him frequently.

<sup>1</sup> Olivry T, De Boer D, Favrot C, Jackson HA, Mueller RS, Nutall T, Prélaud P, et al. Treatment of canine atopic dermatitis: 2010 clinical practice guidelines from the International Task Force on Canine Atopic Dermatitis Veterinary Dermatology 2010, 21, 233-248 2 Popa I, Pin D, Remoue N, et al. Analysis of epidermal lipids in normal and atopic dogs, before and after administration of an oral omega-6/omega-3 fatty acid feed supplement. A pilot study. Vet Res Commun 2011; 35: 501-509. 3 Saevik BK, Bergvall K, Holm BR et al. A randomized, controlled study to evaluate the steroid sparing effect of essential fatty acid supplementation in the treatment of canine atopic dermatitis. Veterinary Dermatology 2004; 15: 137-45.