

Management of bacterial overgrowth of the skin in a dog using topical products



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History

› Lana, a 3 year old Golden Retriever presented to the veterinarian with a skin complaint. This was the first time she presented with such a complaint. During the warmer months of the year she received permethrin-pyriproxyfen-dinotefuran spot-ons as preventative against external parasites and she was fed a premium dog food.

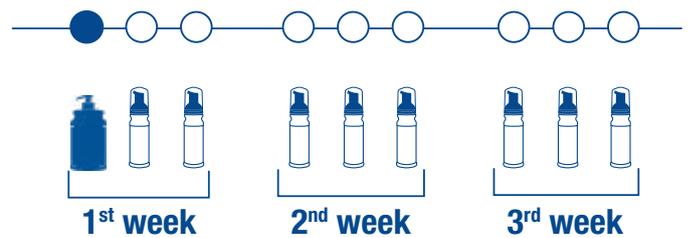
Clinical examination

- › Lana was in good general condition.
- › Skin examination revealed crusts and epidermal collarettes in the sternal area extending to the axillae. She was moderately pruritic.
- › Cytological examination showed numerous neutrophils, bacteria and phagocytosis (cytological score: 3/4). Severity was 2/4 (moderate) and features were observed in 15% of the body (extent score: 3/4).
- › **Diagnosis: bacterial overgrowth**

Management of the case

› The bacterial overgrowth was managed with topical products alone, as there were no signs of a deep pyoderma. This suited the pet owner as they preferred using topical therapy over systemic antibiotics. The protocol used included an initial

bath with DOUXO® S3 PYO Shampoo to clean the skin and remove crusts, followed by DOUXO® S3 PYO Mousse applications every 48-72 hours for 3 weeks.



Shampoo application



Mousse (leave-on) application

Results

- › **Quick improvement of the dysbiosis**
- › Seven days after starting DOUXO® S3, Lana's condition improved. Crusts on the sternum had resolved, however some still remained in the axillae. Cytological score and the extent had decreased to 2/4, and severity decreased to 1/4. Pruritus had also improved and was considered to be very mild at this point.
- › Twenty one days after starting the protocol, there was complete resolution, and all scores were back to normal, at 0/4. The pruritus had also fully resolved.



> Before



Presence of crusts and epidermal collarettes

> After 3 weeks



Crusting and epidermal collarettes resolved

Discussion - The use of topical products for skin germ overgrowth

- > This clinical case illustrates that in the presence of bacteria and neutrophils without macrophages, topical products are sufficient to resolve the bacterial overgrowth. Systemic antibiotics should be reserved for unresponsive cases or deep pyodermas.
- > It is often thought that bathing the dog frequently is needed to remove crusts and bacteria. This case has shown that one initial shampoo is enough to clean the skin. Following the shampoo with a mousse allows for longer lasting action on the skin to manage the bacterial overgrowth. A 2020 publication showed that weekly shampoo is not a key success factor in the management of bacterial overgrowth, and can be replaced by mousse applications without compromise on performance¹.

Key points

Improvement of the skin condition was noticed by the owner within the first week of starting DOUXO® S3. Both the veterinarian and owner considered Lana's skin lesions to have completely resolved by the end of the 3 week protocol. The dog owner was happy with the performance of the topical protocol that effectively managed the infection without the need for systemic antibiotics.

Topical products are usually sufficient when managing cases of bacterial overgrowth. After an initial shampoo with DOUXO® S3 PYO shampoo, DOUXO® S3 PYO mousse applied every 48-72 hours for 3 weeks can be an effective strategy, and it is simple for pet owners to perform this protocol.



1. Gatellet, M., Bruet, V., Cadot, P-M., Laffort, C., Noli, C., Ordeix, L., Kesteman, R., Ollivier, E., De-Jaeger, X. (2020). Performance of two protocols combining Chlorhexidine digluconate 3%- and Ophytrium-based shampoo and mousse applications in the management of bacterial overgrowth in dogs. Proceedings of the 2020 UNISVET National Congress. Milan, Italy.

