

The use of topical products in a dog with a seborrheic disorder secondary to hypothyroidism



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History

- › Megan, a 7-year-old mixed breed, spayed female dog was referred to the dermatologist with superficial pyoderma (bacterial folliculitis) on the body and mild bacterial overgrowth in the ears with associated pruritus.
- › The dog had recurrent episodes of otitis with pruritus on the extremities and muzzle, suggesting that it had been suffering from an allergy for many years. However, the allergy had never been investigated by the referring veterinarian, and the dog had received several courses of oclacitinib to keep the pruritus under control. The pyoderma had developed for the first time a couple of months before.
- › The development of superficial pyoderma at such a late age in an allergic dog could have been due to the underlying allergy to another concomitant disease, such as an endocrinopathy. Thus, a standard endocrinological investigation, including measurements of total T4 and TSH and urinary cortisol/creatinine ratio (UCCR), was done. While the UCCR was normal, the total T4 was low and the TSH was high, confirming a **diagnosis of hypothyroidism**.
- › Levothyroxine 600 mcg (20 µg/kg) was initiated BID. For the superficial pyoderma, the dog was treated with a 4% chlorhexidine shampoo twice weekly, and a spray on the days in between, for four weeks. Oclacitinib 16 mg (0.5 mg/kg) per day and the parasiticide fluralaner were also prescribed.
- › At recheck one month later, a post-pill thyroxine blood test confirmed that the levothyroxine dose of 600 mcg/per day was adequate. The pruritus had decreased, especially in the evening. Oclacitinib

was given in the morning, it usually lasts 16 hours, thus the pruritus was evident in the evening. There were no active pyoderma lesions, and skin cytology was negative for neutrophils and bacteria. There was dry, large scale exfoliation on the trunk. This could have been from remnants of collarettes, the repeated chlorhexidine washings and sprays drying the skin, or the increased skin cell turnover following correction of the endocrinopathy. The veterinarian felt that a specific keratolytic, keratomodulating anti-seborrheic shampoo and mousse protocol would be beneficial in eliminating the scales and normalizing the cornification process.

Clinical examination

- › Megan was in good general condition.
- › She presented with large, dry, white scales trapped in the hair on the dorsum and on the dorsal part of the tail with no other dermatological lesions.
- › The Skin Seborrheic Index score at inclusion was 4/18 with moderate pruritus (pruritus score: 6 on a 10-cm scale).
- › **Diagnosis: scaling secondary to an endocrine disorder.**

Management of the case

- › The aim was to clear the scales, avoid relapses and help manage the pruritus. A topical product is a good option as the ingredients are applied directly to the skin. A protocol combining one DOUXO® S3 SEB Shampoo at D0 and DOUXO® S3 SEB Mousses every 48-72 hours for three weeks was prescribed. Levothyroxine and oclacitinib were continued.



› Before



› After 3 weeks



After three weeks of application, the scales and pruritus had resolved.

Results

- › Megan responded very well to the products from the first week of application.
- › Seven days after starting DOUXO® S3 SEB, the scales had disappeared and the seborrheic score had decreased to 0 (100% improvement). The pruritus score had also decreased to 0.5/10 (92% improvement).
- › At D21, the dog was still in remission and both the owner and prescribing veterinarian considered the dog to have recovered.
- › The owner appreciated the practicality of the protocol, and the fragrance and the texture of the products. He was very pleased with the improvement in the skin and fur of his dog, and Megan's skin odor was also improved.

Discussion - The use of topical products to quickly resolve seborrheic disorders

- › Seborrheic disorders in dogs can be caused by many underlying conditions. Seborrhea, scaling or odor are common reasons pet owners seek veterinary advice. In several situations (for example endocrine disorders), the seborrhea can be resolved by controlling the underlying disease, but this usually takes weeks to months. In addition to treating the primary cause, it is important to rapidly improve skin appearance, as this will address the reason for the consultation. Fur and skin care in seborrheic dogs can be difficult and therefore lead to poor compliance. **Topical formulations are the first choice for seborrheic disorders as they will allow for quick improvement of the fur and skin quality.** Based on the results from our studies in seborrheic dogs, 95% of pet owners considered the DOUXO® S3 protocol to be practical¹, allowing them to spend quality time with their pet. The combination of one initial shampoo to clean the skin, with subsequent mousses, is a convenient and effective protocol that encourages compliance.
- › DOUXO® S3 SEB helps reduce dandruff, excess sebum and unpleasant odor while hydrating and protecting the skin's ecosystem.



Key points

DOUXO® S3 SEB was able to control the odor and scaling in this dog, while hydrating her skin and strengthening the skin's ecosystem. Once the hypothyroidism was completely and effectively under control, the quick response to the shampoo and the mousse, with their keratolytic and keratomodulating properties, really made a big difference in accelerating the process, and resulted in a satisfied pet owner.

1. Internal data, clinical cases 2019, 19 cases.



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