

Management of nonepidermolytic ichthyosis with topical products in a Golden Retriever



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History

› Grace, a 1-year-old, female Golden Retriever suffers from nonepidermolytic ichthyosis. Lesions started to appear when she was only two months old. In 2018, she was treated with an unknown “anti-dandruff” shampoo three times with insufficient results. There was also a history of mild otitis, successfully treated with a peptide-based product, and mild pruritus in the ear region.

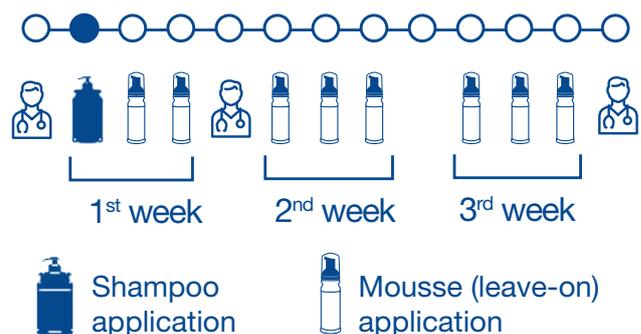
Clinical examination

- › Grace was in good general health.
- › There were large, dry, grey to white scales all over the trunk, trapped in the hair, with no odor or greasiness.
- › The Skin Seborrheic Index score was 6/18 with very mild pruritus (pruritus score: 3.8 on a 10 cm scale).
- › **Diagnosis: scaling due to a genetic disorder (nonepidermolytic ichthyosis)**

Management of the case

› The main objective for this dog was to **clear the scales** as this was the reason for the consultation. A **topical product to reduce scaling was chosen for this condition** as ingredients are delivered directly to the skin. The veterinarian prescribed a

protocol involving one shampoo with DOUXO® S3 SEB, followed by DOUXO® S3 SEB Mousse used every 48-72 hours for three weeks.



Results

- › After 7 days, the scaling had improved. The scaly surface was smaller, especially on the back, and the number of scales had decreased. The seborrhea score had decreased to 4/18 (33% improvement), and pruritus was evaluated as very mild with a score of 2.6/10 (32% improvement).
- › At D21, the scales were only visible on the abdomen. The **back was clear of scales. The seborrhea score had decreased to 3/18, which represents a 50% improvement** compared to D0, and pruritus was stable at 2.5/10 (34% improvement compared to D0).
- › **At the end of the protocol, most areas of the dog were clear of scales.**
- › **Grace's owner was satisfied with the efficacy and practicality of the protocol and appreciated the skin appearance at the end of the treatment.**

› Before



› After 3 weeks



After three weeks of application, most of the scales had disappeared, especially on the back.

Discussion - Topical product use for keratinization disorders

- › Keratinization disorders alter the appearance of the skin. Normal cell turnover is around 21 days, but with keratinization disorders there is an imbalance in the development of new skin cells and dead cell detachment. As a consequence, epidermal thickness changes and accumulation of dead cells become obvious in the form of skin flakes. Causes of keratinization disorders are numerous and can be congenital or acquired. The clinical picture is highly variable depending on the cause and dog breed, from dry scaling to greasy seborrhea. As the presentations can be so different, it can be difficult to find a product that can address all issues at once.
- › Dogs with greasy seborrhea need their skin to be degreased. Sometimes excessive removal of grease can damage the stratum corneum and alter epidermal hydration. DOUXO® S3 SEB has **seboregulating properties** and has been shown to **prevent Malassezia overgrowth**, which is favored in such conditions. **OPHYTRIUM™**, which is present across the DOUXO® S3 range, **strengthens the physical skin barrier** and **promotes proper skin hydration**¹. It also **limits adhesion and biofilm formation** of *Staphylococcus aureus* and *Staphylococcus pseudintermedius*, which can secondarily

develop². It also **soothes erythematous skin**¹. A trial involving dogs with chronic idiopathic greasy seborrhea showed a decrease in their seborrheic clinical score by 91% after 3 weeks with DOUXO® S3 SEB products, whereas no significant change was seen in the control group³.

- › Dogs with dry scaling need normalization of their skin cell turnover, elimination of scales, and hydration of the skin. Grace showed an improvement in her dry scaling after three weeks of DOUXO® S3 SEB application.

Key points

At the end of the protocol, the prescribing **veterinarian found the products and the protocol to be excellent for this Golden retriever with nonepidermolytic ichthyosis**, as it is easy to use and effective in this situation.

Topical products are the first choice to address seborrheic disorders. Clinical presentation is varied, from dry and scaly skin to greasy seborrhea and it is not always easy to choose the most appropriate product or combination of products. The DOUXO® S3 SEB range has been proven to suit pets with either dry or greasy seborrhea.

1. Ollivier, E., Zemirline, C., Amalric, N., Rahoul, V., Reymond, N., & Cadiergues, M. (2019). Efficacy of the ingredient A97614A1 in a model of reconstructed human epidermis stressed by cytokines. Proceedings of the 62nd BSAVA Congress, Birmingham, UK. April 4-7th.
2. Ollivier, E., Zemirline, C., Marchand, L., & Closs, B. (2019). Effect of the ingredient A97614A1 on the adhesion and biofilm formation of *Staphylococcus pseudintermedius* in a model of reconstructed canine epidermis. Proceedings of the 62nd BSAVA Congress, Birmingham, April 4-7th.
3. Cadiergues, M. C., Kondratjeva, J., Brun, J., Moog, F., Zemirline, C., Maubert, N. et al. (2020). Clinical performance and tolerance of a combination of Ophytrium- and Seboliance-containing shampoo and mousse applications in seborrheic dogs. 63rd BSAVA Congress, Birmingham, UK.

