

Minoxidil for Morphea? Maybe Not

A focal area of hair loss developed in a Persian cat several days after application of a spot-on flea control product. Over 2 months, the area enlarged to 10 cm and was a well-demarcated, raised plaque-like lesion in the dorsal cervical area and interscapular region. Routine diagnostics did not identify the cause, and a skin biopsy was obtained. Histological findings revealed extensive and severe fibrosis characterized by collagen fibers and low cellularity. The lesion was compatible with scleroderma (morphea). Hair follicles were still visible on the histological section. After the lesion failed to respond to oral pentoxifylline, the area was treated with 5% minoxidil q12h for 60 days with complete resolution of signs. Thirty-six months after the episode, the initial lesion had not recurred and hair growth was still present.

■ Commentary

Morphea-like lesions would be included in the differential diagnosis of noninflammatory persistent alopecia in a cat or dog. As in many cases of focal noninflammatory alopecia, the most enlightening diagnostic test is a skin biopsy; however, the specimen should be sent to a veterinary dermatopathologist with history and, ideally, images. Little is known about morphea in dogs and cats, as it can be difficult to differentiate from scarring cicatricial alopecia.¹ The pathogenesis of morphea is likely multifactorial involving underlying predisposition, environmental trigger (eg, trauma, medication, infections), and vascular injury.² Of note, topical minoxidil has been reported to be toxic to cats, resulting in lethargy, dyspnea, hypothermia, pulmonary edema, pleural effusion,

and death.³ Although this cat responded to treatment, the use of minoxidil is not recommended.—*Karen Moriello, DVM, DACVD*

■ ■ Source

Morphea-like lesion following topical endectocide application in a cat. Seixas G, Taboada P. *VET DERMATOL* 23:244-e50, 2012.

1. **Scarring alopecia.** Mecklenburg L. In Mecklenburg L, Linek M, Tobin DJ (eds): *Hairloss Disorders in Domestic Animals*—Ames: Wiley-Blackwell, 2009, p 189.
2. **Update on morphea: Part 1. Epidemiology, clinical presentation, and pathogenesis.** Fett N, Werth VP. *J Am Acad Dermatol* 64:217-228, 2011.
3. **Suspected toxicosis after topical administration of minoxidil in 2 cats.** DeClementi C, Bailey KL, Goldstein SP, Orser MS. *JVECC* 14:287-292, 2004.

Cholesteatoma: Awareness Is Key

Cholesteatomas are epidermoid cysts containing keratotic material that progressively expand, causing destruction to adjacent tissue and osteoclastic bone resorption. Cholesteatomas are rare and can occur secondary to otitis media in humans and dogs or as a result of surgery or congenital malformation. This study reported end-stage cholesteatoma causing sensory deficits of the trigeminal nerve after lateral bulla osteotomy (LBO) in 2 dogs. A French bulldog and a pug each presented with head tilt, circling, ataxia, loss of consciousness, and difficulty breathing from brachycephalic syndrome. Both had histories of total ear canal ablation (TECA) and LBO. Mass effects were noted on MRI and CT. Ventral bulla osteotomy was performed on the pug. The bulldog underwent retrograde nasopharyngeal endoscopy and biopsies were obtained. Surgical resection was not an option. Histopathologic samples confirmed fibrotic tissue, squamous epithel-

ium, and areas with abundant keratotic material. Culture from the pug also revealed severe resistant *Staphylococcus pseudintermedius* infection responsive to cephalosporins. The pug continued to do well after surgery, but the bulldog was euthanized a month after presentation.

Cholesteatomas may be present more often than currently suspected and should be considered in cases of neurologic or trigeminal sensory deficit in patients that have had TECA or LBO surgery. Dogs with anatomic structural malformations may be at increased risk. It was suggested that if all otic material cannot be visualized and removed at surgery, a second intervention should be considered.

■ Commentary

This suggested that clinicians should be aware of cholesteatomas of the middle ear, particularly in brachycephalic dogs, even after total ear canal ablation with bulla

osteotomy. The compressed nature of brachycephalic dogs makes complete removal of epithelium particularly challenging. Surgeons are traditionally warned that fistulization may develop if any epithelial tissue remains. This provides another avenue in which persistent ear disease can be manifested after surgery. Early suspicion coupled with advanced imaging can lead to resolution of disease, serving as a reminder that successful long-term management after a TECA and bulla osteotomy requires complete removal of all diseased tissue.—*Kristy Broaddus, DVM, MS, DACVS*

■ ■ Source

Cholesteatoma after lateral bulla osteotomy in two brachycephalic dogs. Schuenemann RM, Oechtering M. *JAAHA* 48:261-268, 2012.

MORE ►