

FOCUS Alopecia & Hyperestrogenism in Dogs

Alopecia, a common complaint in veterinary medicine, is often classified as inflammatory or noninflammatory. Noninflammatory alopecia may result from abnormal hair growth (eg, congenital alopecia) or hair cycle arrest (eg, endocrine disturbances, alopecia X) and tends to result in a diffuse and symmetrical distribution. Inflammatory alopecia (eg, demodicosis, pyoderma, pemphigus foliaceus) typically has well-demarcated or patchy distribution.

This report describes a case series of 6 unrelated dogs from 3 households that presented with progressive noninflammatory alopecia secondary to hyperestrogenism following transdermal exposure to their owners' topical hormone replacement therapy (THRT). Hyperestrogenism is most commonly the result of ovarian cysts, granulosa cell tumors, Sertoli cell tumors, or diethylstilbestrol administered for urethral sphincter incompetence. The associated alopecia typically is bilaterally symmetrical, progressing from the perineal and inguinal regions to the flanks, abdomen, thorax, and limbs.

Signs of feminization were present in 5 of 6 dogs. Average onset to signs was 5.5 months after the owners started THRT with alopecia severity correlating with exposure length. Hyperestrogenism diagnosis was based on patient history, clinical signs, diagnostic test results incompatible with more common causes of alopecia, histopathology, baseline serum sex hormone levels (most commonly elevated estradiol and progesterone levels). All dogs had complete resolution of clinical signs by 5.5 months after discontinuation of THRT.

Commentary

Hair loss as a dog owner's primary complaint can be frustrating to diagnose and treat. If inflammation is present, differentials include parasitic, infectious, and allergic causes; most veterinarians frequently treat such cases. When inflammation is absent, the diagnostic course is less apparent. This case series provides excellent detail on the diagnostic process for noninflammatory alopecia in dogs. It illustrates the logic that leads to questioning owners on the possibility of exogenous hormones. Although a team might not remember to ask about that particular medication in every case of noninflammatory alopecia, the answer can be found if a logical series of tests is performed. —Elizabeth Layne, DVM, Resident in Dermatology (University of Wisconsin)

Source

Berger DJ, Lewis TP, Schick AE, Miller RI, Loeffler DG. Canine alopecia secondary to human topical hormone replacement therapy in six dogs. *JAAHA*. 2015;51(2):136-142.

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Surolan®

otic suspension

(miconazole nitrate, polymyxin B sulfate, prednisolone acetate)

Antifungal, antibacterial and anti-inflammatory
For otic use in dogs only

CAUTION

Federal (USA) law restricts this drug to use by or on the order of a licensed veterinarian.

INDICATIONS

SUROLAN is indicated for the treatment of canine otitis externa associated with susceptible strains of yeast (*Malassezia pachydermatis*) and bacteria (*Staphylococcus pseudintermedius*).

CONTRAINDICATIONS

SUROLAN is contraindicated in dogs with suspected or known hypersensitivity to miconazole nitrate, polymyxin B sulfate, or prednisolone acetate. Do not use in dogs with known perforated tympanum. Do not use with drugs known to induce ototoxicity.

WARNINGS

Not for use in humans. Keep this and all drugs out of reach of children.

ANIMAL WARNINGS

Do not administer orally. For otic use only.

PRECAUTIONS

Before instilling any medication into the ear, examine the external ear canal thoroughly to be certain the tympanic membranes are not ruptured.

If overgrowth of non-susceptible bacteria or fungi occurs, treatment should be discontinued and appropriate therapy instituted.

Long-term use of topical otic corticosteroids has been associated with adrenocortical suppression and iatrogenic hypoadrenalism in dogs.

The safe use of SUROLAN in dogs used for breeding purposes, during pregnancy, or in lactating bitches, has not been evaluated.

ADVERSE REACTIONS

In the field study, 161 dogs treated with SUROLAN were included in the safety database. Two dogs experienced reduced hearing at the end of treatment; on follow-up one dog had normal hearing capacity while the other case was lost for follow-up. The owner of another dog reported that on day 4 of treatment, build-up of the medication decreased the dog's hearing. At the end of treatment, this dog had normal hearing as assessed by the investigator. Residue build-up was reported in 1 dog and pain upon drug application in another dog.

For technical assistance or to report a suspected adverse drug reaction, contact Elanco Animal Health at 1-888-545-5973.

EFFECTIVENESS

Of 337 dogs enrolled in the field study, 176 dogs were included in the effectiveness database; 91 were treated with SUROLAN and 85 were treated with an FDA-approved active control. Clinical evaluations of otitis externa included pain/discomfort, swelling, redness, and exudate. A non-inferiority evaluation was used to compare SUROLAN with the active control with respect to each clinical sign of otitis externa and overall clinical improvement. SUROLAN was determined to be non-inferior to treatment with the active control for otitis externa. *Malassezia pachydermatis* and *Staphylococcus pseudintermedius* were identified pre-treatment in at least 10 cases that were clinically responsive to SUROLAN. SUROLAN was 96.7% effective in overall clinical improvement.

HOW SUPPLIED

SUROLAN is available in 15 mL and 30 mL plastic dispensing bottles with applicator tip for otic use.

STORAGE AND HANDLING

Store at or below 25 °C (77 °F).

NADA 141-298, Approved by FDA.

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