Behavioral Dermatosis- Psychogenic Alopecia (or is it?)

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Key Points

(Proceedings adapted from Lilly and Siracusa, 2023**)**

There is a multifactorial connection between health, behavior and the skin (Denda et al., 2012; Takei et al., 2013) Anxiety can be both sequalae of, or worsen pruritus.(Tey et al., 2013)
Though any repeated behavior, self-directed or otherwise, could be deemed a "behavior problem" and approached as such, we evaluate the evidence-based approach to self-directed skin problems in the cat:

- licking/grooming
- chewing or sucking
- scratching
- biting

Why the Skin?

In fact the skin is a major target of the most commonly listed stress mediators: corticotropin releasing hormone, adrenocorticotropic hormone, cortisol, catecholamines, prolactin, and substance P. (Arck et al., 2006; Denda, 2015, Evangelista et al., 2016) There is increasing recognition that itch prone to sensitization (Oaklander, 2014) Cats have high density of Ruffinian corpuscles, Merkel's discs and slow-adapting receptors (Overall, 2013).

Systematic Approach: The History

Successful diagnoses hinges on obtaining objective, descriptive information of the behavior itself, the frequency, intensity, locations impacted and the change over time/ in response to prior treatment modalities. Since cats do not exist 'in a vacuum' remember to collect a complete environmental history (home environmental including people, their schedules and other animals) Remember that this can be challenging for clients who are often both frustrated and worried. Use key words like 'what does it look like?" "How many minutes does an episode last uninterrupted"?

The Differential List- dermatologic component

Some of this will be similar across behaviors performed, and the dermatologic component should be ruled in/out for every patient where skin or hair has been impacted: (Gary Landsberg et al., 2013; Medleau and Hnilica, 2006; Muller et al., 2013; Tapp and Virga, 2012). (List taken from (Lilly and Siracusa, 2023)

- Infections: bacterial, fungal, viral, or parasitic (this may be secondary contributing etiologies)
- Hypersensitivity allergic reactions: flea, contact, or food
- Neoplasia, particularly mast cell tumors or feline paraneoplastic alopecia and dermatitis
- Pain: local to the skin, the underlying area, or a near-by, but inaccessible body part (e.g. anal glands in an obese cat, or bladder pain below abdominal skin)
- Metabolic/endocrine causes such as cutaneous adverse drug reaction
- Idiopathic- facial oral pain syndrome

The Neurologic component:

A basic neurologic exam is warranted especially if lesions are not symmetrical, or the behavior is directed at the tail. Consistent recruitment of a single limb with repetitive movement must be differentiated from a psychomotor seizure (Kline, 2006)

Self-licking/grooming

House cats may spend up to 30% of their day grooming and stretching.(Houpt, 2012a) Face and head grooming is already stereotyped when normal: sit, apply saliva to the medial aspect of the front limb while holding said limb horizontally, sweep the limp from caudal to rostral across the head/face circularly and upward. Each pass will stretch the forelimb further rostral.(Houpt, 2012b) The remainder of grooming is not stereotyped normally.

What will the patient look like:

With excessive grooming or licking from any cause you will often find alopecia, hypotrichia with broken hairs of varying lengths, broken hairs in short tufts of uniform lengths, or hook-liked coiled hairs (Scarampella et al., 2015), and erythema, especially in the face of secondary infections are all commonly seen.

Though Siamese, Burmese, Himalayans and Abyssinians are over represented. (Sawyer et al., 1999) Otherwise it can be cats of any age, sex, or breed.

Systematic approach to excessive licking:

It's probably NOT psychogenic alopecia: In 21 cases already 'diagnosed' with psychogenic alopecia, 2 (9.5%) had no other underlying medical etiology, while 76.5% (16) had purely medical causes (Waisglass et al., 2006)

In addition to a physical exam, derm exam, basic neuro exam and labwork, consider an analgesic trial (Lilly and Siracusa, 2023). Underlying GI disease may be at play especially when there is also licking of surfaces or fabrics (wool sucking). (Bécuwe-Bonnet et al., 2012; Bradshaw et al., 1997; Demontigny-Bédard et al., 2016; Frank et al., 2012) remember to check in on low amounts of vomiting or diarrhea using a fecal chart. They may not concern the owner, ("cats just vomit sometimes") feline food sensitivity may exhibit as mixed pruritic and GI signs (Guilford et al., 1998, 1998)

Excessive Self- Scratching

What will my patient look like?

Pruritus and pain can cause scratching and self-excoriations due to any cause if left treated long enough. Pain in underlying areas can also cause excoriation. Patients may be any age or breed overall, though some differentials have specific predispositions (see below)

Systematic Approach to self-scratching

A core evaluation requires many of the same things as above. Once the skin barrier is so damaged, culture and biopsy are important to look for environmental and opportunistic pathogens. Remember to protect yourself from *Sporothrix!* (Muller et al., 2013). Analgesic trial

- Complete Blood Cell count, Chemistry panel, Thyroid, and Urinalysis
- Additional evaluation of underlying structures (location dependent)(Gary Landsberg et al., 2013; Medleau and Hnilica, 2006; Muller et al., 2013; Tapp and Virga, 2012)
    - Head and neck- otoscopic, oropharyngeal, dental, cervical spine
    - Facial/muzzle- nasal passage, upper dental arcade, sinuses
    - Chin- feline eosinophilic granulomatous complex is rarely itchy without secondar infections
    - Ear tips- solar dermatitis in white cats may become pruritic and painful when chronic
    - Shoulders/axillae/elbows- spine, shoulder and elbow orthopedic evaluation, axillary lymph node evaluation. (there may also be licking of these areas due to neck flexibility)

Consider the location. The head and neck have a few special considerations: atopic dermatitis (Foster, 1994). Look below the skin such as for polyps, dental disease, or neck pain. Methimazole's drug induced pruritic if often limited

to head and neck. ("Felimazole (methimazole) Coated Tablets Package Insert," 2015; Ioannou and Mahony, 2022) If the lesions are limited to the lips and come with excessive chewing consider FOPS. (Rusbridge et al., 2010) While it can happen in any breed, this is most common in Burmese.
If the lesions are the dorsolateral neck and between the shoulder blades, after a clean medical work up consider the rare syndrome Feline Behavioral Ulcerative Dermatitis (FBUD). (Titeux et al., 2018)

Biting self-trauma:

What will my patient look like?
Patients may be any age or breed overall. Wounds may be punctures, or bruises visible when shaved, or no notable self damage topically. Hyperesthesia onset is anywhere from 1-6 years of age(Amengual Batle et al., 2019)

Systematic Approach to Biting self-trauma
A key in self-directed biting will be to look for underlying causes. Consider the location of the biting and look for out musculoskeletal or neuropathic pain in underlying structures. Near the tail base, hips or rump include anal gland problems, current or prior tail bite abscesses and constipation. Additionally, this may be a common target in cats with feline hyperesthesia especially when there is concurrent rippling, rolling skin or spasms of the epaxial muscles. (Ciribassi, 2009) Cats with feline hyperesthesia may have episodes that are unexplained or brought on by arousal: pupil dilation, vocalizing, estrus-like rolling, running, and redirected aggression.(Gary Landsberg et al., 2013; Overall, 2013)

Treatment

Treat any and all underlying/comorbid causes. Often this requires concurrent treatment of behavior and skin, and may include barriers to self-harm (Elizabethan collars, clothing). Cats will also need environmental and behavioral modifications both for any compulsive component, and stress mitigation, but also to allow the cat to adapt to cones or clothing.

Environmental Management

FBUD, and hyperesthesia are best treated with environmental management, and decreasing conflicting interactions with humans. (Spaterna et al., 2003; Titeux et al., 2018) FOS may be serotonergic responsive, and none of these respond particularly well to steroids and NSAIDs or opioids (Spaterna et al., 2003; Titeux et al., 2018) (Rusbridge et al., 2010) (Amengual Batle et al., 2019)

Making sure all cats needs are met in their own core areas, and applying MEMO(Buffington et al., 2006) can support any stress component to any of these disorders. Pheromones may also be helpful(Bol et al., 2017; De Jaeger et al., 2021; Ellis and Wells, 2010; Griffith et al., 2000; Gunn-Moore and Cameron, 2004)

Behavioral Management

Be deliberate in reinforcement- reward behaviors we want and ignore those we do not. Set up the cat, the client and the environment to support this. Punishment of any kinds can increase stress and must be avoided. Instead, using positive interruption cues for other behaviors can be done. (Hammerle et al., 2015; Overall et al., 2005)

Medical Management

This is necessary for underlying infections, pain, or allergic components. If stressful triggers cannot be mediated or avoided, then anti-anxiety pharmacologic agents are warranted. There is a small collection of research for these purposes in cats:

Fluoxetine 0.5-1mg/kg Q24 (Romatowski 1998 case report) Most frequently prescribed behavior medication; hyperesthesia syndrome with trauma to the tail in 1 cat (Amengual Batle et al., 2019)

Sertraline 0.5-1mg/kg Q24 Case series use for psychogenic alopecia in cats- 1/11 cats (Sawyer et al., 1999)

Clomicalm 0.5-1mg/kg Q24 (Mertens et al., 2006; Overall and Dunham, 2002; Seksel and Lindeman, 1998)

Buspirone NOT effective in psychogenic Alopecia (Sawyer et al., 1999)

There are a variety of diets available to help mitigate stress over several weeks, but only with Hills c/d multi care stress specifically report overgrooming decreased(Meyer and Bečvářová, 2016). None of the rapid acting medications available to cats have been peer reviewed for use in any of the self-directed behaviors, except when hyperesthesia is noted. Then gabapentin has been found useful alone or in combination with other medications. (Amengual Batle et al., 2019)

Prognosis varies widely, but hinges on our ability to treat all of the mitigating factors.

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