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**Breed-based Skin Diseases**

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**Introduction**  
Signalment (age, breed, sex) predilections are becoming more important in all branches of clinical medicine as more epidemiologic data are accrued. Breed predilections are seen as a feature of many skin diseases of the dog and cat. These breed predilections can aid diagnosis via prioritizing differential diagnosis bases on likelihood of occurrence in that breed. Some diseases have such striking breed predilections that it may greatly facilitate diagnosis. Diseases with strong breed predilections are likely to have an inherited basis. During the past three years, 3 ‘new’ skin diseases affecting the planum nasale and philtrum of dogs and cats have been diagnosed. All 3 diseases have marked breed predilections.

**Nasal parakeratosis of Labrador retrievers**  
Nasal parakeratosis of Labrador retrievers is a rare syndrome characterized by proliferative changes of the planum nasale. Autosomal recessive inheritance is hypothesized.

- Clinical features: dry, rough, proliferative keratotic adherent debris forms on the planum nasale. Lesions are most severe dorsally. The planum may change color from black to gray or brown. Owners have noted that the affected planum becomes paler after the surface is wet. Deep fissuring can initiate secondary infection. Affected dogs are otherwise healthy.
- Progression: in early stages, the process does not ablate the normal cobblestone appearance. Later, the process may ablate the normal architecture.
- Signalment predilections: this syndrome is seen exclusively in Labrador retrievers or their related crossbreeds. Black, yellow, and chocolate Labrador retrievers have been reported. Lesions develop between 6 months and 1 year of age and thirteen of 18 affected dogs were males.
- Differential diagnosis: the disease is visually distinctive. Possible differential diagnoses include nasodigital hyperkeratosis, zinc-responsive skin dermatosis, discoid lupus erythematosus, and pemphigus foliaceus.
- Therapy: topical petroleum jelly or topical propylene glycol in water have been used with palliative success. Topical therapy must be continued long-term.

**Proliferative arteritis of the nasal philtrum (Saint Bernards)**  
Proliferative arteritis of the nasal philtrum is a rare and distinctive vascular disease affecting the nasal philtrum. The etiology is not known. An inherited disorder is strongly suspected as 4 of 5 dogs reported were Saint Bernards and 3 of 4 were closely related.

- Clinical features: the disease is characterized by solitary, well-demarcated linear ulcers with adherent hemopurulent crusts affecting the nasal philtrum. Ulcers ranged in size from 3 to 5 cm in length, 2 to 15 mm in width and 2 to 5 mm in depth. Arterial hemorrhage of variable severity occurred in all dogs. Affected dogs are otherwise healthy.
- Progression: progression is unclear. Affected dogs have experienced long term problems with periodic more severe ulcerations.
- Signalment predilections: four of 5 dogs were Saint Bernards and the fifth dog reported was a giant schnauzer. The syndrome is tardive in onset and affects adult dogs between 3 and 6 years of age.
- Differential diagnosis: the disease is visually distinctive.
- Therapy: immediate surgical intervention is required if severe arterial bleeding is noted. Oral anti-inflammatory dosages of corticosteroids, topical corticosteroids, tetracycline and niacinamide, and omega-3 (fish oil) fatty acids have been palliative in some dogs. Treatment must be continued long-term.

**Ulcerative planum nasale of the Bengal cat**  
Ulcerative planum nasale of the Bengal cat is a rare and distinctive skin disease characterized by fissures, crusts, and ulcers of the planum nasale seen only in Bengal cats. A defect resulting in high epidermal turnover and reduced thickness of the stratum corneum was hypothesized.

- An inherited disorder is strongly suspected as all affected cats have been Bengal cats. The disease has been seen in Sweden, Italy, the United Kingdom, and in the U.S.A. (2 in Northern California).
- Clinical features: scaling progressed to adherent crusts overlying erosions and ulcers. Pruritus or pain were not noted. Bleeding can occur.
- Progression: disease is gradual in onset in Bengal cat kittens or young adults.
- Signalment predilections: age of onset was between 4 months and 1 year of age.
- Differential diagnosis: the disease is visually distinctive.
Facial dermatitis of Persian and Himalayan cats

This is an uncommon and progressive, idiopathic facial inflammatory skin disease reported in young Persian and Himalayan cats. It is presumed to be inherited.

- **Clinical features**: tightly adherent, darkly colored, greasy or waxy debris mats the facial hair. Erythema and exudation occur as the syndrome becomes chronic. Lesions usually are more severe in the facial folds, but also are present in non-intertriginous locations. A bilaterally symmetric ceruminous otitis externa was seen in about half of the Persian cats seen by Bond. The muzzle, periorbital regions and chin are affected. Less severe lesions may affect body regions beyond the head. Secondary pyoderma or secondary *Malassezia* dermatitis may increase severity of clinical signs. Pruritus commonly becomes intense with chronicity. Submandibular lymphadenopathy may be noted.

- **Progression**: gradual in onset, progressive.

- **Signalment predilections**: affected Persian cats first present between 10 months and 6 years of age. Males may be slightly over-represented. In addition to published reports, multiple other Persian and Himalayan cats have been seen by various dermatologists worldwide.

- **Differential diagnosis**: facial dermatitis of Persian and Himalayan cats is visually distinctive. Clinical differential diagnoses are few. Adherent dark facial debris may be seen with severe feline acne. A primary seborrhea of Persian cats has been reported, but other body regions beyond the face frequently are affected.

- **Therapy**: antiseborrheic shampoos (difficult on face), azoles for secondary *Malassezia* dermatitis and antibiotics for bacterial overgrowth.

- **Proliferative necrotizing otitis of kittens**

I am cheating a bit with this last disease; most cases have been seen in domestic shorthaired cats. Proliferative necrotizing otitis of kittens is a rare, highly characteristic syndrome of unknown etiology. An immunologic basis is suspected since the syndrome bears some resemblance on biopsy to hyperkeratotic erythema multiforme. At this time, there is no evidence to link this syndrome to infectious viral diseases. PCR testing for feline herpesvirus 1 has been negative in a small number of cats. Papillomavirus immunohistochemistry also has been negative. It is unknown whether heredity has an influence.

- **Clinical features**: erythematous, well-demarcated plaques with adherent, thick keratinous debris develop on the medial aspect of the pinnae, the entrance to the auditory canal, and in some cats, the preauricular region of the face. Lesions develop rapidly and coalesce creating annular or serpiginous borders. Adherent crusts cover the lesions and become trapped in the hair coat. Erosion and ulceration occur as the syndrome progresses. The syndrome usually is asymptomatic. Mild pruritus or discomfort is noted when ulceration is present.

- **Progression**: lesions develop in kittens between 2 months and 6 months of age and regress spontaneously between 1 and 2 years of age.

- **Signalment predilections**: the syndrome is seen only in cats less than one year of age. Most cases have occurred in domestic shorthaired cats.

- **Differential diagnosis**: proliferative necrotizing otitis of kittens is visually distinctive. Diagnosis is confirmed by skin biopsy.

- **Proliferative necrotizing otitis of kittens** is highly visually distinctive. The authors have not seen lesions with these clinical characteristics in the context of other diseases. Diagnosis is confirmed by skin biopsy. Therapy: palliative only, no known successful therapy.

**References**

**Nasal parakeratosis of Labrador retrievers**


**Proliferative arteritis of the nasal philtrum**


**Ulcerative planum nasale of the Bengal cat**


**Facial dermatitis of Persian and Himalayan cats**


**Proliferative necrotizing otitis of kittens**