

Follicular Dysplasia

DEFINITION

Non-color-linked follicular dysplasia is a rare, developmental defect in which abnormal follicular function results in either a patchy loss of hair or generalized abnormality of hair structure.

ETIOLOGY AND PATHOGENESIS

The disorder is of unknown etiology, although the fact that individuals of certain breeds appear to exhibit similar signs suggests an inherited component. The abnormalities in follicle function result in failure to cycle properly, pigment clumping, shaft abnormalities, hypotrichosis or alopecia, and follicular hyperkeratosis.

CLINICAL FEATURES

Although any individual animal may be affected, a number of syndromes have been recognized in various breeds. However, the face and distal extremities are areas that are seldom affected. Periodic remissions may occur in some animals, but with time the condition progresses.

Siberian Husky and Malamute

There is incomplete shedding of the juvenile coat, fracture and loss of guard hairs, and a reddish discoloration of remaining hair. Secondary hair will appear wooly, dry and matted. Focal areas of alopecia may occur at points of wear such as under collars and pressure points.

Doberman Pinscher and Weimaraner

There is a slowly progressive, non-pruritic symmetrical loss of hair, usually starting on the dorsal lumbosacral region. Hair loss begins at about 12 months of age and frequently remains confined to the sublumbar fossae and dorsal lumbosacral region. Animals are prone to secondary superficial pyoderma.

Curly Coated Retriever, Irish Water Spaniel, Portuguese Water Dog, and Chesapeake Bay Retriever

Affected individuals of these breeds exhibit loss of primary hairs and the remaining secondary hairs become dull and of a lighter shade. The distribution pattern is often prominent on the ventral neck, posterior aspects of the rear legs and tail. Trunkal involvement may occur initially or evolve as the condition progresses. Hair loss around the eyes is frequently seen in Portuguese Water Dogs.

Rottweilers

Follicular lipidosis is a rare condition seen in Rottweilers. Affected dogs start to lose hair from the brown colored areas on the face and feet.



The rest of the coat is normal and there are no systemic signs. The clinical appearance is pathognomonic. Histopathology reveals follicular dysplasia of affected skin with lipid deposition and swelling of hair bulb matrix cells. The condition can be progressive or wax and wane with periods or remission, but largely remains a cosmetic problem.

DIFFERENTIAL DIAGNOSES

- Endocrine diseases
- Color-dilute alopecia
- Demodectic mange
- Ringworm
- Alopecia X
- Cyclical flank alopecia

DIAGNOSTIC TESTS

Clinical history, physical examination, basic investigatory tests, and endocrine profiles will rule out infectious causes and endocrinopathies. Hair plucks can reveal variably irregular hairs with broken shafts and dysplastic bulbs. Cytology can be useful to confirm secondary infection. Histopathology reveals variable follicular dysplasia, melanin aggregates, and follicular hyperkeratosis. Secondary infection can superimpose a perifollicular to interstitial inflammatory pattern and can mask subtle signs of dysplasia, and should therefore be controlled before biopsies are taken.

MANAGEMENT

There is no specific treatment for these conditions. Therapy is based on managing the skin to promote healthy skin turnover, normal follicular development and control secondary infections.

Treatment measures can include:

- Avoiding further damage to coat – sun and/or cold weather protection
- Gentle anti-scaling and moisturizing shampoos
- Control secondary infections with topical antimicrobial shampoos and use moisturizing rinses/conditioners if the shampoo is drying.
- High quality diets and essential fatty acid supplements can reduce scaling and promote hair growth in some dogs.
- Melatonin and retinoids acitretin may help some dogs. Retinoids are usually well tolerated but side effects include keratoconjunctivitis sicca, vomiting, diarrhea, joint pain and stiffness, itching, changes in the liver.

KEY POINTS

- Breed-associated syndromes greatly facilitate recognition of these diseases, but do not forget the differential diagnoses.
- The prognosis is generally poor for the coat, although the quality of life can be maintained for most dogs with appropriate treatment.