CLINICAL KNOWLEDGE INSIGHTS

CONGENITAL & HEREDITARY DERMATOSES

SEBACEOUS ADENITIS

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CONTENTS

AT A GLANCE : 7.1
WHAT DOES IT LOOK LIKE? : 7.2
PATHOLOGIC IMAGE LIBRARY : 7.2
WHAT ELSE LOOKS LIKE THIS? : 7.3
HOW DO I DIAGNOSE IT? : 7.3
HOW DO I MANAGE IT? : 7.4
COMMENTS : 7.5
REFERENCES : 7.5

AT A GLANCE

- An inflammatory disease that causes the destruction of sebaceous glands
- Leads to scaling and progressive loss of hair
- Uncommon in dogs; also very rare reports in cats and rabbits
- Highest incidence is in young to middle aged animals
- Breed predilections include the Standard Poodle, Hungarian vizsla, Akita, German shepherd dog, Samoyed, Belgian sheepdog and Havanese
- Primarily a cosmetic disease
**WHAT DOES IT LOOK LIKE?**

- Often affects dorsal back and neck in addition to head, face, ears and tail
- Lesions vary from localized to generalized over the body

**SHORT-COATED DOGS**
- Lesions often begin as annular areas of scaling and alopecia that enlarge and may coalesce
- Scales are often fine and non-adherent
- Patchy alopecia is common- moth-eaten appearance
- May present with nodular lesions and plaques

**LONG-COATED DOGS**
- Hair may become lighter or darker or may change from curly to wavy or straight (poodles)
- Dull, brittle haircoat

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**PATHOLOGIC IMAGE LIBRARY : SEBACEOUS ADENITIS**

- [Black Standard Poodle with sebaceous adenitis and patchy alopecia on the dorsum](image)
- [Closer view of back of black Standard Poodle with sebaceous adenitis](image)
- [Follicular casts surrounding hairs plucked from the black Standard Poodle](image)
- [Multifocal alopecia in a Vizsla with sebaceous adenitis](image)
- [Closer view of the head of Vizsla with sebaceous adenitis showing “serpentine” pattern of hair loss.](image)
• Diffuse alopecia is common
• Undercoat is often lost while primary hairs are spared
• Scales often adhere to the hairs forming follicular casts

**OTHER CLINICAL SIGNS MAY INCLUDE:**
• Hyperpigmentation
• Lichenification
• Secondary superficial or deep pyoderma and associated pruritus
• Otitis externa
• Greasy skin and haircoat +/- malodor

**WHAT ELSE LOOKS LIKE THIS?**
• Superficial pyoderma
• Demodicosis
• Dermatophytosis
• Follicular dysplasias
• Endocrinopathies- hypothyroidism, hypercortisolism
• Primary seborrhea
• Vitamin A-responsive dermatosis
• Ichthyosis

**HOW DO I DIAGNOSE IT?**
• History and clinical signs
• Skin scrapings to rule out demodicosis
• Fungal culture to rule out dermatophytosis
• Skin cytology/bacterial culture and susceptibility if indicated

**BIOPSY FOR DERMATOHISTOPATHOLOGY**

**EARLY LESIONS**
→ Discrete granulomas in areas of sebaceous glands
→ No involvement of other adnexa

**CHRONIC LESIONS**
→ Fibrosis replaces absent sebaceous glands
→ Hyperkeratosis and follicular plugging may be seen
HOW DO I MANAGE IT?

MILD CASES

• Oral omega-3 and/or omega-6 supplementation daily
• Topical therapy - keratolytic shampoos and emollient rinses/humectants every 2-4 days

SEVERE CASES

• High doses of oral fatty acid supplementation daily
• Propylene glycol in water (50-70%) spray or water based moisturizing spray daily
• Baby or mineral oil soaks (2-3 hours) followed by bathing to remove excess oil repeated weekly until condition has improved, then every 2-4 weeks for maintenance

ADDITIONAL MEDICATIONS

VITAMIN A

• 1000 IU/kg by mouth every 24 hours
• Tetracycline / Niacinamide
• Dogs weighing less than 10kg - 250mg of each by mouth every 8 hours
• Dogs weighing more than 10kg - 500mg of each by mouth every 8 hours

PREDNISONE

• 2 mg/kg by mouth every 24 hours until lesions are controlled, then tapered slowly to reach the lowest every other dose that controls clinical signs

ISOTRETINOIN OR ACETRETIN

• 1 mg/kg by mouth every 12-24 hours until lesions are improved, then tapered to every 24-48 hours or 0.5mg/kg every 24 hours
• Liver enzyme values should be monitored every 2 weeks during induction
• Requires extensive owner consent to be prescribed

CYCLOSPORINE (ATOPICA)

• 5 mg/kg by mouth every 24 hours
• This is the only treatment which may lead to an increase in sebaceous glands in addition to clinical improvement
• Treatment with appropriate antibiotics or antifungals if secondary bacterial or yeast infection is present
• Early diagnosis and treatment often leads to a better long term prognosis
**COMMENTS**

- Sebaceous adenitis is inherited as an autosomal recessive condition in Standard Poodles and Akitas, therefore, affected dogs should not be bred
- Sebaceous adenitis is a condition where sebaceous glands become inflamed and are eventually destroyed
- Definitive diagnosis is made via skin biopsy and dermatohistopathology
- Shorter-coated dogs may have milder clinical signs, leading to a better prognosis than longer-coated dogs.
- Some dogs have periods of spontaneous improvement and worsening that occurs independently of treatment
- Multiple therapies may be necessary to treat this condition

**REFERENCES**

- Information regarding the Orthopedic Foundation for Animals registry for Sebaceous Adenitis (www.offa.org/sa_info.html)