



# Alopecia in Dogs and Cats

## Diagnosis

🔍 Examination
Tx Treatment
Mo Monitor  
Dx Diagnosis
✅ Result

### Check

- Ask the owner if their pet is scratching, chewing, biting, rubbing, or licking its skin.
- Physical exam for evidence that supports the possibility of self-induced alopecia or spontaneous alopecia.

✅ An episode from the owner and/or a lesion on its skin that support the animal is itchy

Dx Self-induced alopecia

✅ A lesion that supports spontaneous alopecia and/or an episode from the owner showing it is not itchy

Dx Spontaneous alopecia

\*Approach as pruritic skin diseases

- Infections
  - Pyoderma
  - Malassezia
  - Dermatophytosis
- Ectoparasites
  - Demodicosis
  - Lice
  - Ear mite
  - Chigger
- Allergy etc.

🔍 Physical exam to check the distribution of alopecia

✅ Focal/multifocal alopecia

✅ Symmetrical/diffuse alopecia

🔍 Check the skin lesion is inflammatory or not by physical exam (most cases) or biopsy (few cases)

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✅ Inflammatory

✅ NOT Inflammatory

✅ Inflammatory

✅ NOT Inflammatory

①

②

③

④

Dx

- Infections
  - Pyoderma
  - Dermatophytosis
- Demodicosis

Dx

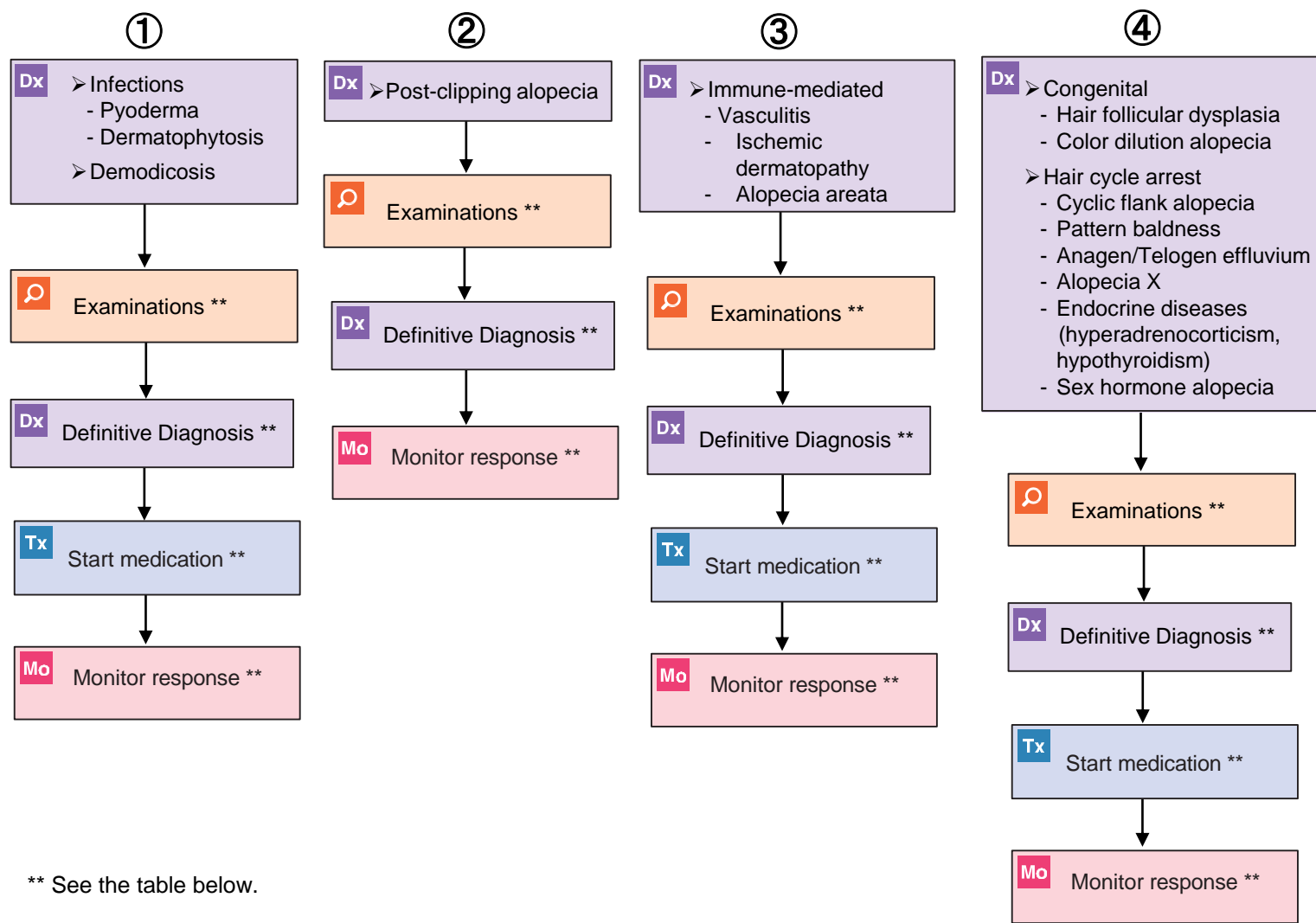
- Post-clipping alopecia

Dx

- Immune-mediated
  - Vasculitis
  - Ischemic dermatopathy
  - Alopecia areata

Dx

- Congenital
  - Hair follicular dysplasia
  - Color dilution alopecia
- Hair cycle arrest
  - Cyclic flank alopecia
  - Pattern baldness
  - Anagen/Telogen effluvium
  - Alopecia X
  - Endocrine diseases (hyperadrenocorticism, hypothyroidism)
  - Sex hormone alopecia






## Diagnosis and Treatment of Alopecia

For ① and ②

<b>Dx</b> Diagnosis	<b>Etiology</b>	<b>Features</b>	<b>Ex</b> Examination	<b>Tx</b> Treatment	<b>Mo</b> Monitor
<b>① Infections - Pyoderma</b>	Bacterial infection (secondary to underlying causes)	Any age Any breed	Skin cytology	Antibiotics	Until clinical resolution
<b>① Infections - Dermatophytosis</b>	Dermatophyte (from other animals or soil) infection	Immunocompromised animals Persian cats	Dermatophyte test medium (DTM) culture	Antifungals	Until two negative DTM cultures
<b>① Demodicosis</b>	Demodex mite infestation	Juvenile or Adult Localized or Generalized	Deep skin scraping	Isooxazolines	Until confirm negative skin scraping
<b>② Post-clipping alopecia</b>	Lack of hair regrowth after clipping	At clipping site	Based on history	None	None

# Diagnosis and Treatment of Alopecia

For ③ and ④

Dx	Diagnosis	Etiology	Features	 Examination	 Tx Treatment	 Mo Monitor
③	Immune-mediated - Vasculitis	Immune-mediated vasculitis	Middle age At ear tips, tail tip, paw pads Bleeding, ulcer	Skin biopsy	Immunosuppre-ssants	Adjust treatment by clinical signs
③	Immune-mediated - Ischemic dermatopathy	Immune-mediated vasculitis	Middle age At ear tips, tail tip, paw pads Scarring	Skin biopsy	Immunosuppre-ssants	Adjust treatment by clinical signs
③	Immune-mediated - Alopecia areata	Immune-mediated bulbitis	Middle age Dachshunds At face/head (can be generalized)	Skin biopsy	Immunosuppre-ssants	Adjust treatment by clinical signs
④	Congenital - Hair follicular dysplasia	Malformation of hair follicles	Young age Airedale terriers, Irish water spaniels, Portuguese water dogs etc.	Based on breeds + clinical presentation Skin biopsy	None	None
④	Congenital - Color dilution alopecia	Melanosome transportation defect	Young age Blue or fawn color	Based on hair color (Skin biopsy)	None	None
④	Hair cycle arrest - Cyclic flank alopecia	Unknown	Younger age Boxers, English bulldogs Well-demarcated seasonal alopecia on flanks	Breeds and clinical presentation Skin biopsy	None	None
④	Hair cycle arrest - Pattern baldness	Unknown (miniaturization of hair follicles)	Younger age Dachshunds (ears), American water spaniels (neck, thighs), greyhounds (caudal thighs), Boston terriers, Chihuahuas (head, ventrum, thighs)	Breeds and clinical presentation Skin biopsy	None	None
④	Hair cycle arrest - Anagen/ Telogen Effluvium	Hair cycle arrest due to systemic illness	Sudden generalized alopecia	Based on history	Treatment for the systemic disease	None

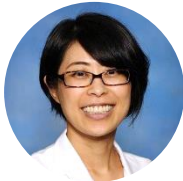
# Diagnosis and Treatment of Alopecia

For ④ (continued)

Dx	Diagnosis	Etiology	Features	Examination	Tx	Monitor
④	Hair cycle arrest - Alopecia X	Unknown	Young age Plush-coated breeds Truncal alopecia	Breeds and clinical presentation Excluding endocrine diseases	None Microneedling (recent treatment)	None
④	Hair cycle arrest - Hyperadrenocorticism (Endocrine disease)	Excessive cortisol hormone (PDH, AT, Iatrogenic)	Old age Any breeds Hypothricosis	Clinical sings (PUPD) CBC, Biochemistry (ALP) Hormones (Cortisol)	Trilostane Mitotane	Adjust treatment by clinical response + Hormone levels (Cortisol)
④	Hair cycle arrest - Hypothyroidism (Endocrine disease)	Deficiency of thyroid hormones	Old age Any breeds At the nasal bridge, rat tail Dull coat	Clinical signs (lethargy, weight gain) CBC, Biochemistry (Cholesterol, TG) Hormones (T3, T4, fT4, TSH)	Levothyroxine	Adjust treatment by clinical signs + Hormone levels (T4)
④	Hair cycle arrest - Sex hormone alopecia	Excessive sex hormones	Intact animals	Sex hormones	Neutering (spay, castration)	Until clinical resolution

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