**Non-inflammatory Hair Loss**

- Congenital and acquired causes
- Variable distribution
- Transient or persistent
- Nonpruritic

---

**Normal Hair Growth**

- Requires good health and nutrition
- Genetically influenced
- Influenced by photoperiod
  - Season
  - Owner life style & environmental lighting
- Asynchronous
- Topographically variable

---

**HAIR LOSS**

- Inflammatory
  - Exposed skin is clinically inflamed
  - Primary lesions usually present
  - Typically focal or asymmetrical
- Non-inflammatory
  - Exposed skin appears normal
  - No primary lesions initially
  - Focal, asymmetrical, or symmetrical
Phases of Hair Growth

Anagen  Catagen  Telogen

Hair Cycle Observations

- Always a variation in the % of hairs in the anagen and telogen phase of growth
- Variations in telogen:anagen ratio influenced by:
  - Body site
  - Genetics
  - Season: warm vs. cold
  - Different in health and disease?

Hair Data for the Laboratory Dog

- Normal hair cycle: 105-160 days
  - Anagen: 60 - 90 days
  - Catagen: 5 - 10 days
  - Telogen: 40 - 60 days
- Growth rate: 0.04 - 0.18 mm/day
- Telogen: anagen ratio?

Hair Replacement Time

<table>
<thead>
<tr>
<th>Season</th>
<th>Time to Regrowth</th>
<th>Tel/Ana Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring</td>
<td>14.6</td>
<td>5:2</td>
</tr>
<tr>
<td>Summer</td>
<td>14.5</td>
<td>6:1</td>
</tr>
<tr>
<td>Fall</td>
<td>13.6</td>
<td>9:5</td>
</tr>
<tr>
<td>Winter</td>
<td>15.4</td>
<td>5:3</td>
</tr>
</tbody>
</table>

Evaluation of the Hair Loss Patient

- Complete history
  - Inspect previous photographs
- Complete general and dermatologic exam
- Trichogram
- Skin biopsy following the trichogram??

The Trichogram

Helps evaluate
- Hair cycle
- Hair follicle anatomy
- Presence of acquired hair shaft defects
- Nature of pigmented changes
Prerequisite before skin biopsy!!
Sample Collection

- Select typical areas
- Sample 10-15 hairs
  - Finger pluck
  - Rubber-jawed forceps
- Mount in mineral oil

The Normal Trichogram

- Admixture of anagen and telogen hairs
- Admixture of primary and secondary hairs in dogs and cats
- Normal hair shaft anatomy
  - Straight vs. curly
  - Distinct cuticle, cortex, and medulla
  - Tapered tip
- Appropriate pigmentation
- Little to no adherent follicular debris

Trichographic Abnormalities

- Abnormal telogen/anagen ratio
- Hair casting
- Hair shaft abnormalities
  - Unusual shapes
  - Hair shaft structural defects
    - Focal
    - Diffuse
  - Pigmentary abnormalities

Hair Casts

- Follicular keratin and sebum entrap one or more hair shafts
- Large numbers indicate a disorder of follicular keratinization
- Visible grossly

Disorders Causing Hair Casting

- Sebaceous adenitis
- Demodiosis
- Vitamin A “deficiency”
- Genetic keratinization disorders
  - Primary seborrhea
  - Primary follicular parakeratosis
  - Follicular dysplasia
  - Miscellaneous

Hair Loss Conditions

<table>
<thead>
<tr>
<th>PERSISTENT</th>
<th>TRANSIENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Endocrine diseases</td>
<td>Defluxion disorders</td>
</tr>
<tr>
<td>Structural follicular dysplasia</td>
<td>Follicular arrest disorders</td>
</tr>
<tr>
<td>Genetic hair shaft defects</td>
<td>Acquired hair shaft disorders</td>
</tr>
<tr>
<td>Immunologic hair follicle</td>
<td>Excessive shedding</td>
</tr>
<tr>
<td>disorders</td>
<td>Seasonal flank alopecia</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>Miscellaneous</td>
</tr>
</tbody>
</table>

Miscellaneous

Visible grossly
**Endocrine Hair Loss**

- Variable systemic signs
- Coat changes due to
  - Altered hair follicle growth rate
  - Altered hair follicle cycle
  - Hair follicle receptor interactions

**Patterns of Hair Loss - Hypothyroidism**

**Patterns of Hair Loss - Hyperadrenocorticism**

**Patterns of Hair Loss - Sex Hormone Dermatoses**

**Canine Hypothyroidism**

- Most common endocrine disease
- T4 necessary to institute anagen
- Hairs already in anagen show decreased growth rate
- Initial hair loss in frictional areas

**Clinical Signs**

- Lethargy/Mental Dullness
- Weight gain/obesity without an increase in appetite
- Heat seeking
- Skin changes
- Cardiovascular signs
- Neuropathy and myopathy
- Reproductive system irregularities
- Coagulopathy (controversial)
Patterns of Hair Loss - Hypothyroidism

Classical Patterns

Atypical Patterns

Clinical Pathology

- Normocytic, normochromic, and non-regenerative Anemia - (30%).
- Hypercholesterolemia - (70%)
- Increased activities of AST, ALT, and ALP

Thyroid Tests

- Total T4 (TT4): subnormal baseline T4 unreliable in differentiating dogs with hypothyroidism from dogs with non-thyroidal illness.
- Free T4 (fT4): FT4 (RIA) alone is inaccurate; need equilibrium dialysis (cats & dogs) or two-step physical separation procedures (dogs)
- Canine TSH: TSH concentration increased with primary hypothyroidism; however, 25% dogs with primary hypothyroidism have normal TSH
- Thyroglobulin Autoantibody: Autoantibodies to T4 interfere with T4 RIA determinations producing spuriously high T4 concentrations.
- Entire thyroid panel best. Combined TT4 and fT4 next best.

Diagnostic Dilemmas

- 1. Dogs with non-thyroidal illness, FT4 may be low and TSH may be high in 25% and 8%, respectively.
- 2. Euthyroid sighthounds (e.g., Greyhounds, Scottish deerhounds, Salukis) and well-conditioned sled dogs have lower FT4 and T4 concentrations.
- 3. Recent vaccination may transiently increase thyroglobulin autoantibody levels
- 4. Dogs receiving phenobarbital or sulfonamide antibiotics have thyroid testing suggestive of primary hypothyroidism.
- 5. T4 concentrations are higher in puppies.

Therapy - Sodium Levothyroxine

- Dose: 0.01 mg/lb PO given or divided Q12h
- Maximum dose usually 0.8 mg Q12h
- Reduce to once daily administration?
- Monitor blood levels via post-pill testing
  - Q12h administration: 4-6 hours post-pill
  - Q24h administration: 24 hours post-pill

Feline Thyroid Disease

- Hypothyroidism: rare
- Hyperthyroidism: common
  - Uncommon to rare skin signs
**Feline Hypothyroidism**
- Clinical Signs
  - Lethargy / Obesity.
  - Seborrhea sicca; matting of hair.
  - Bilaterally symmetrical truncal alopecia (including alopecia of ear tips)
  - Disproportionate dwarfism (enlarged head with short neck and limbs), mental dullness, constipation, hypothermia, and bradycardia observed in kittens with congenital hypothyroidism

**Diagnosis.**
- Free T4 by equilibrium dialysis / Total T4 / TSH assay. Canine TSH assay recently validated for cats.

**Therapy.**
- Sodium Levothyroxine: 10 μg/kg/day adjusted based on post-pill serum T4 determinations.

**Feline Hyperthyroidism**
- Clinical Signs
  - Weight Loss
  - Polyphagia
  - Polydipsia/Polyuria
  - Hyperactivity (pacing, restlessness, vocalization).
  - Vomiting
  - Diarrhea / Voluminous Stools
  - Unkempt Haircoat: matted, dry, or greasy hair coat
  - Cardiovascular and Respiratory Abnormalities

**Adrenocortical Disorders**
- Bilateral adrenal hyperplasia
- Adrenocortical neoplasia
- Follicular Arrest Syndrome (Alopecia X, Adrenal hyperplasia-like syndrome)

**Canine Hyperadrenocorticism**
- Bilateral Hyperplasia
  - Most common etiology
  - Constitutional signs almost always present
  - Predictable pattern of progression
    - Systemic signs
    - Altered hair coat
    - Hair loss

**Clinical Signs**
- Polyuria/polydipsia (85-97%)
- Polyphagia (70-87%)
- Hepatomegaly (70%)
- Pot-bellied appearance (75-95%)
- Skin changes (40-60%)
- Anestrus (80%) or testicular atrophy (50%)
- Virilization: Clitoral hypertrophy in 40%
- Hypertension (50-75%)
- Excessive bruising
- Poor wound healing
Clinical Signs
- Predisposed to infection
- Increased panting
- Neurologic signs

Canine Hyperadrenocorticism
Bilateral Hyperplasia
- Excessive glucocorticoids result in:
  - Decreased sebum secretion
  - Decreased epidermal turnover
  - Slowed hair growth
  - Delayed hair regrowth
  - Altered coat color
  - Predisposition to comedones

Canine Hyperadrenocorticism
Adrenal Neoplasia
- Constitutional signs develop close to hair loss
- Glucocorticoids +/- sex hormones
- Cutaneous signs variable

Clinical Pathology
- Stress leukogram, mild erythrocytosis, and thrombocytosis.
- Mild hyperglycemia (overt diabetes mellitus in 10%)
- Hypercholesterolemia / Hypertriglyceridemia.
- Increased serum liver enzyme activities of AST, ALT, and ALP
- Low urine specific gravity
- Urinary tract infections.
- Decreased basal T4 concentrations due to TSH/TRH inhibition by cortisol.
### Adrenal Screening Tests

- **Urine cortisol: creatinine ratio (UCCR)** - low specificity with a high sensitivity. Voided at-home urine sample preferred
- **ACTH response test**
  - Differentiates normal dogs from dogs with HAC
  - Does not distinguish dogs with PDH from functional adrenal tumor.
  - 50% of dogs with adrenal tumors have normal or blunted ACTH response tests
  - 10% of PDH dogs may have normal ACTH response tests
  - Low-dose dexamethasone suppression test (LDDST):
    - Differentiates normal dogs from dogs with HAC.
    - May also distinguish dogs with PDH from adrenal tumor if the 4 hour sample shows suppression but the 8 hour sample escapes suppression
- **ACTH Response Test**
  - Differentiates normal dogs from dogs with HAC
  - Does not distinguish dogs with PDH from functional adrenal tumor.
  - 50% of dogs with adrenal tumors have normal or blunted ACTH response tests
  - 10% of PDH dogs may have normal ACTH response tests

### Adrenal Discrimination Tests for Type of HAC:

- **High-dose dexamethasone suppression test (HDDST)**: Test differentiates most dogs with PDH from cortisol-secreting adrenal tumor
- **Plasma ACTH Levels**
- **Abdominal ultrasound**

### Cortisol Values in Function Testing

<table>
<thead>
<tr>
<th>Test</th>
<th>Normal Dog</th>
<th>Bilateral Hyperplasia</th>
<th>Neoplasia</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACTH Response</td>
<td>Pre: 1.5-4.0</td>
<td>Post: 7.0-16.0</td>
<td>Pre: 1.5-4.0 or ↑ Post: ↑↑</td>
</tr>
<tr>
<td>Low-dose DST</td>
<td>Pre: 1.5-4.0</td>
<td>4 hour: &lt;0.5</td>
<td>Does not suppress to &lt;0.5 at 8 hours</td>
</tr>
<tr>
<td>High-dose DST</td>
<td>Pre: 1.5-4.0</td>
<td>4 hour: &lt;0.5</td>
<td>Suppression to &lt;0.5 or &lt;50% of baseline. No suppression in 20%</td>
</tr>
</tbody>
</table>

### Medical Management

- **Mitotane**
- **Trilostane**
- **Ketoconazole**: 5-15 mg/kg q12h
- **L-Deprenyl**: 1-2 mg/kg q24h

### Medical Therapy - Mitotane

- **Mitotane** (o,p'-DDD, Lysodren): causes selective necrosis of zona fasciculata and reticularis,
- **Loading**: 30-50 mg/kg/day (divided into 2 doses with meals) for 5-10 days
- **Maintenance**: 25-50 mg/kg/week in two to four divided doses with meals.
  - Easy controllers: 25-35 mg/kg/week
  - Difficult controllers: 35-50 mg/kg/week.
Mitotane Therapy

<table>
<thead>
<tr>
<th>Pre ACTH</th>
<th>Post ACTH</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5-5.0</td>
<td>1.5-5.0</td>
<td>Start weekly maintenance</td>
</tr>
<tr>
<td>&lt;1.5</td>
<td>&lt;1.5</td>
<td>Stop mitotane. ACTH in 2-4 weeks</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pre ACTH</th>
<th>Post ACTH</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>≥7.0-16</td>
<td></td>
<td>Continue loading</td>
</tr>
</tbody>
</table>

Medical Therapy - Trilostane

- **Trilostane (Vetoryl®):** inhibits production of cortisol.
- **No loading period**
- **Variable initial dosing:**
  - 1 mg/kg/day
  - 2-6 mg/kg/day
  - 30 mg/day (or every other day) for dogs between 3-10 kg
  - 60 mg/day for dogs ≥ 10 kg but ≤ 20 kg
  - 90-120 mg/day for dogs > 20 kg
  - 2-3 mg/kg divided BID

Trilostane Therapy

<table>
<thead>
<tr>
<th>Pre ACTH</th>
<th>Post ACTH</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5-5.0</td>
<td>1.5-5.0</td>
<td>Maintain current dose</td>
</tr>
<tr>
<td>≥7.0-16</td>
<td>≥7.0-16</td>
<td>Increase dose by 25%. Rest 14 days and adjust carefully if needed</td>
</tr>
<tr>
<td>&lt;1.5</td>
<td>&lt;1.5</td>
<td>Stop medication. ACTH in 7 days</td>
</tr>
</tbody>
</table>

Feline Hyperadrenocorticism

- Rare
- Rare constitutional signs
- Skin changes variable and atrophic

Diagnostic Testing

- **Urine cortisol:creatinine ratio:** Sensitive but not specific
- **ACTH response test:** Not reliable screening test (> 50% of affected cats have normal results)
- **Dexamethasone suppression tests**
- **Plasma ACTH measurements**
- **Abdominal ultrasound**

Dexamethasone Suppression Testing

<table>
<thead>
<tr>
<th>Dosage</th>
<th>Normal Cat</th>
<th>Non-adrenal Disease</th>
<th>PDH</th>
<th>Tumor</th>
</tr>
</thead>
<tbody>
<tr>
<td>4005 mg/kg</td>
<td>Suppression in 85%</td>
<td>No suppression</td>
<td>No suppression</td>
<td>No suppression</td>
</tr>
<tr>
<td>314 mg/kg</td>
<td>Suppression</td>
<td>Suppression</td>
<td>No suppression</td>
<td>No suppression</td>
</tr>
<tr>
<td>13 mg/kg</td>
<td>Suppression</td>
<td>Suppression</td>
<td>Suppression in 95%</td>
<td>No suppression</td>
</tr>
</tbody>
</table>
**Therapy**
- Mitotane
- Ketoconazole
- Trilostane: Most promising treatment.
- 10-20 mg/cat divided BID PO
- Adrenalectomy: Unilateral for adrenal tumor, bilateral for PDH.

**SEX HORMONE DERMATOSES**

### Follicular Arrest Syndrome
- No commonly accepted name
- Under diagnosed
- Hair follicle receptor issue??
- Adrenal enzymatic deficiency??
  - 21-hydroxylase ??
  - Abnormal adrenal sex hormone production

### Follicular Arrest Syndrome
- Young age at onset of coat change
- Age to hair loss is variable
- Males >> Females
- Pomeranians, Chow Chow, Samoyed and Keeshond predisposition
- No constitutional signs initially

### Follicular Arrest Syndrome
- Diagnosis via exclusion
- CBC, chemistry panel, urinalysis
- ACTH stimulation test
  - Cortisol & sex hormones: pre and post ???
- Treatment optional ??
  - Melatonin: 0.5 mg/kg q12h
  - Mitotane
  - Trilostane

### Follicular Arrest Syndrome
- Constitutional signs usually absent
- Result in patterned alopecia
- Variable coat color alteration
- Result of
  - Production alterations
  - Hormone interactions

### Gonadal Sex Hormone Disorders
Gonadal Sex Hormone Disorders

- Androgen and estrogen receptors on hair follicles
- Number and affinity of receptors varies with gender and body site
- Patterned alopecia persists long-term

Gonadal Disorders of the Intact Female

- Four syndromes
  - Hyperestrogenism: ovarian cysts/tumor
  - Hyperprogesteronism: ovarian tumor
  - Cutaneous pseudocyesis
  - Primary anestrus
  - Estrogen-responsive alopecia???
- Resolved by neutering

Hyperestrogenism

- Signs of constant estrus
- Patterned alopecia
- Numerous comedones

Hyperprogesteronism

- Ovarian tumor or cyst
- Systemic signs due to growth hormone production
  - Acromegaly
  - Diabetes mellitus
- Cutaneous signs due to antiandrogenic influence of progesterone

Cutaneous Pseudocyesis

- Hair loss starts ~ 6 weeks post-estrus
- Behavioral and/or mammary changes usually present
- Spontaneously resolves
**Ovarian Imbalance Type II**  
*(Estrogen-responsive Alopecia)*

- Rare-to-nonexistent
- Patterned baldness in most cases
- Age at onset critical

---

**Gonadal Disorders of the Intact Male**

- Four syndromes
  - Testicular neoplasia
  - “Normal” testes
  - Hyperandrogenemia
  - Primary testicular atrophy
- Hormone measurements ????
- Treat by castration

---

**Testicular Neoplasia**

- Most tumors are benign and nonsecretory
- Bilateral tumors occur
- Estrogens produced by
  - Sertoli cell tumors
  - Seminomas
- Testosterone produced by some interstitial cell tumors
- Blood dyscrasias can be seen in chronic cases

---

**“Normal” Testes**

- Testes are palpably and functionally normal
- Hormone measurements unreliable
- Co-existent adrenal disease?

---

**Non-endocrine Hair Loss**
**Congenital Hair Loss Disorders**
- Intentional or accidental
- Recognizable within 12 weeks of age
- Can be accompanied by other ectodermal defects
  - Claw disorders
  - Dental abnormalities
  - Corneal disorders
  - Bronchial gland abnormalities

**Patterned Baldness**
- Hypotrichosis with miniaturization of hairs
- Most common in
  - Dachshund
  - Boston Terrier
  - Greyhound

**Color-linked Alopecia**
- Black hair follicular dysplasia
- Color dilution alopecia

**Black Hair Follicular Dysplasia**
- Recognizable around 12 weeks of age
- Difficult to recognize on trichogram

**BHFD - Diagnosis**
- History & Physical
- Trichogram
- Skin Biopsy
- Genetic testing – Munsterlander (Healthgene)

**Color Dilution Alopecia**
- Associated with blue or fawn coat colors
- New coat colors?
- Not all diluted animals affected
- Timing to onset influenced by intensity of the coat color.
Color Dilution Alopecia

- History & Physical
- Trichogram
- Skin Biopsy

Breed-specific Dysplasias

- Increased fragility of hair
- Variable course initially
- Worsens with time
- Variable trichographic changes
  - Shaft defects
  - Hair casts

Red and Black Dobermans

- Onset between 1-4 years.
- Initial presentation often for recurrent bacterial folliculitis
- Slow progression
- Never generalized

Siberian Husky and Malamute

- Onset around 6 months
- No primary hair coat develops
- Coat takes on reddish brown color

Airedale Terrier, English Bulldog, Boxer, Staffordshire Terrier

- Onset in early adulthood
- Flank and saddle regions involved
- May be cyclic initially or persist from the onset

Irish Water Spaniel, Portuguese Water Dog, Curly-coated Retriever

- Onset in puppy hood
- Waxing-and-waning course initially
**Irish Setter**
- Abnormal coat quality
- Recognized early in life
  - Early endocrine disease?
- Moisturizers beneficial

**Yorkshire and Silky Terrier**
- Melanoderma and alopecia of Yorkies
- Short hair syndrome of Yorkies and Silkies

**Miscellaneous Breeds**
- Many different breeds recognized

**Transient Hair Loss Conditions**
- Defluxion disorders
- Follicular arrest disorders
- Acquired hair shaft disorders
- Excessive shedding
- Seasonal flank alopecia
- Miscellaneous

**Defluxion Disorders**
- Anagen or telogen defluxion
- “Stress” interrupts growth of anagen hairs
- Telogenized hairs unaffected
- Defluxion follows “stress” removal

**Anagen Defluxion**
- Short-lived “stress”
- Hair growth continues when stress is removed
- Coat changes occur in 7 to 14 days
Telogen Defluxion

- Long-lasting “stress”
- Hair growth ceases
- With full recovery, synchronized hair growth starts
- Coat changes follow stress by 30 to 45 days

Follicular Arrest

- Clipped coat starts to regrow but stops
- Most likely when clipping occurs in fall
- Spontaneous reactivation of growth in 6 to 24 months.

Hair Shaft Disorders

- Trichorrhexis nodosa
- Trichoptilosis
- Pili torti
- Shaft disorder of the Abyssinian
- Others

Trichorrhexis Nodosa

- Golden retriever predisposed
- Most cases acquired
- No treatment beneficial

Trichoptilosis

- Golden retriever predisposed
- Most cases acquired
- No treatment beneficial

Medullary Trichomalacia

- German Shepherd Dogs predisposed?
- Medullary change decreases flexibility and increases fragility of hairs
- Spontaneous resolution with possible relapses
**Excessive Shedding**
- Common complaint
- Predisposing factors
  - Dog is hyper-excitable
  - Owners are night owls
  - Fluorescent or quartz halogen lighting
  - Overzealous grooming?
  - Shedding to alopecia is rare

**Seasonal Flank Alopecia**
- Boxer, English Bulldog, and Airedale Terrier
- Spontaneous hair loss in one season with regrowth in the next
- One or multiple episodes
- May become permanent

**Seasonal Flank Alopecia**
- Intact males: late fall → early spring
- Neutered females: early spring → late summer
- Castrated males: ???
- Intact females: ???

**Drug-induced Hair Loss**
- Most commonly seen with glucocorticoid excess
- Also recognized with
  - Cytotoxics
  - Ketoconazole

**Traumatic Hair Loss**
- Environmental or self-induced trauma
- May be permanent

**Traction Alopecia**
- Caused by excessive traction on hairs
- Transient or permanent
# “Shilling Alopecia”
- Bristly-coated puppies
- Associated with prolong caging
- Pressure induced follicular atrophy ± necrosis
- Variable prognosis

# Post-traumatic Alopecia
- Associated with blunt force trauma
- Hair loss follows event by 3-4 weeks
- Not painful or pruritic
- Exposed skin can develop a glistening appearance
- Variable tissue necrosis

# Feline Symmetrical Alopecia
- Common clinical complaint
- Most cases are self-induced
  - Excessive grooming
  - Trichotilomania
  - Trichography: clean hair shaft fracture

# Traumatic Symmetrical Alopecia
- Extensive differential
  - Allergic disease: Atopy, food
  - Parasitic disorders
  - Dorsum: Fleas, Cheyletiella sp.
  - Ventrum: *Demodex gatoi*
  - Behavioral disorders
  - Others
**Traumatic Symmetrical Alopecia**
- Response to steroids (pred: 2.2 mg/kg)
- Atopy: Good
- Food allergy: Usually poor
- Cheyletiella infestation: Good
- Fleas: Good
- *Demodex gatoi*: Usually poor
- Behavioral disorders: Poor

**Spontaneous Symmetrical Alopecia**
- Uncommon to rare
- Endocrine disorders
- Feline acquired symmetrical alopecia
- Paraneoplastic alopecia

**Acquired Symmetrical Alopecia**
- Typically a shaft disorders, defluxion disorder or traumatic in origin
- Biopsy indicated

**Paraneoplastic Alopecia**
- Sick cats
- Sudden onset of hair loss
- Exposed skin is shiny and moist
- *Malassezia* overgrowth common
- Very poor prognosis

**Infiltrative Follicular Disorders**
- Histologically inflammatory
- Clinically non-inflammatory

**Infiltrative Follicular Disorders**
- Alopecia areata
- Pseudopelade
- Lymphocytic mural folliculitis
- Granulomatous folliculitis
- Granulomatous perifolliculitis
- Miscellaneous
**Alopecia Areata**
- Sudden onset
- Sharp demarcation between normal and affected skin
- Variable number of lesions
- May resolve spontaneously

**Pseudopelade**
- Newly recognized syndrome
- Focal, regionalized, or generalized hair loss
- Permanent

**Lymphocytic Mural Folliculitis**
- Newly recognized syndrome
- Focal or multifocal areas of hair loss
- Associated with
  - Drug reaction
  - SLE
  - Epitheliotrophic lymphoma

**Granulomatous Folliculitis**
- Giant cell infiltration of the hair follicle wall
- Unknown etiology

**Granulomatous Perifolliculitis**
- Perifollicular inflammation results in annular to diffuse hair loss
- Variable clinical course

**Disorders Causing Hair Casting**
- Sebaceous adenitis
- Demodicosis
- Vitamin A “deficiency”
- Genetic keratinization disorders
  - Primary seborrhea
  - Primary follicular parakeratosis
- Follicular dysplasia
- Miscellaneous
Epitheliotropic Lymphoma

- Fairly common
- Exfoliative erythroderma usually an intercurrent finding
- Protracted clinical course