



# APPROACH TO DERMATOLOGICAL PATIENT

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graph TD; A[History] --> B[Skin lesions]; B --> C[Main problems]; C --> D[Differential diagnoses]; D --> E[Diagnostic tests];
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History

Skin lesions

Main problems

Differential diagnoses

Diagnostic tests

# HISTORY



# HISTORY

- Indoor/outdoor?
- Are there other pets in the house? Are they healthy?
- Travel history
- Flea/tick prevention. When was the last application?
- Food ingredients history. Any previous diet trail?
- Any other than skin diseases?
- Current medications?
- When did you last time see a flee on a pet?
- Do any people in the house have skin lesions?



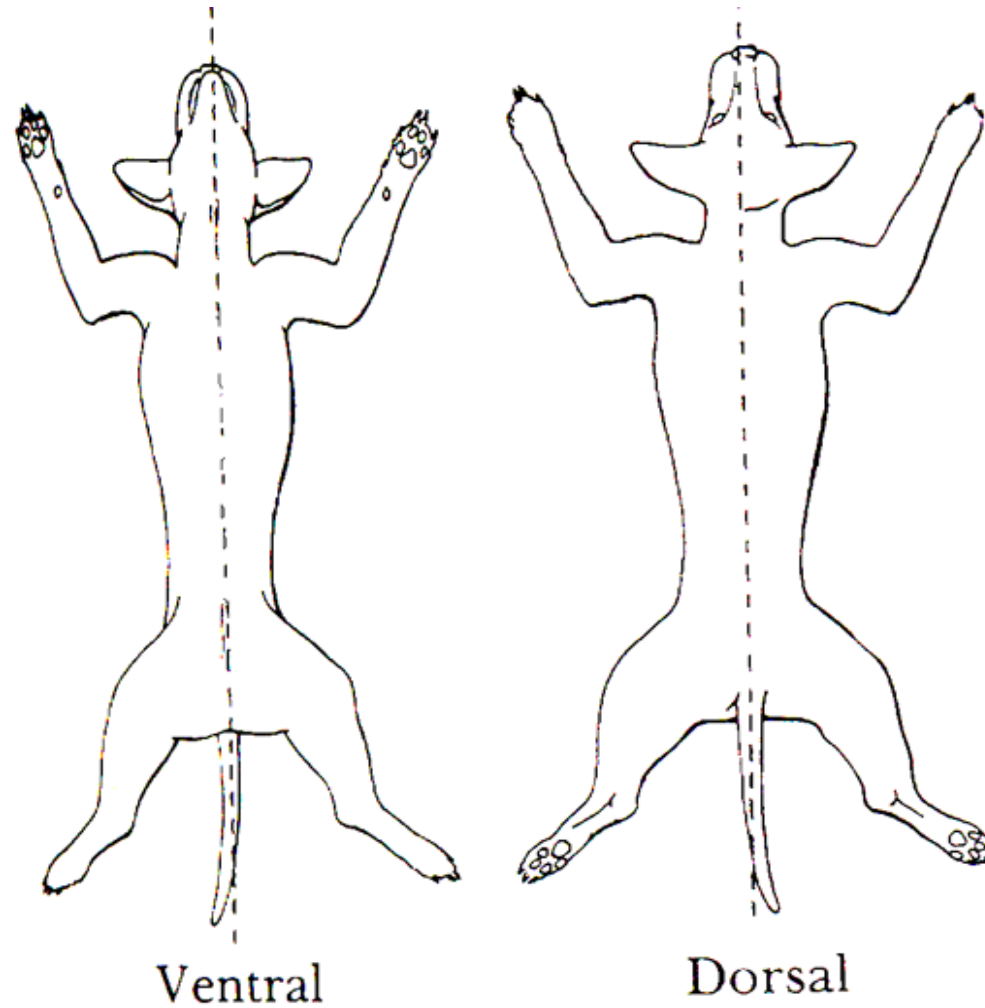
# HISTORY OF THE PROBLEM

- At which pet's age did you notice the first skin problem?
- What was it – itch or lesions?
- Which areas of the body were affected first?
- What was the course of the disease?
- Is there any seasonality noticed?
- Which treatment did help temporarily?
- How severe the symptoms now?
- Does the pet lick the paws? Rubs the face? Shakes the head?
- Are there any changes in general condition?

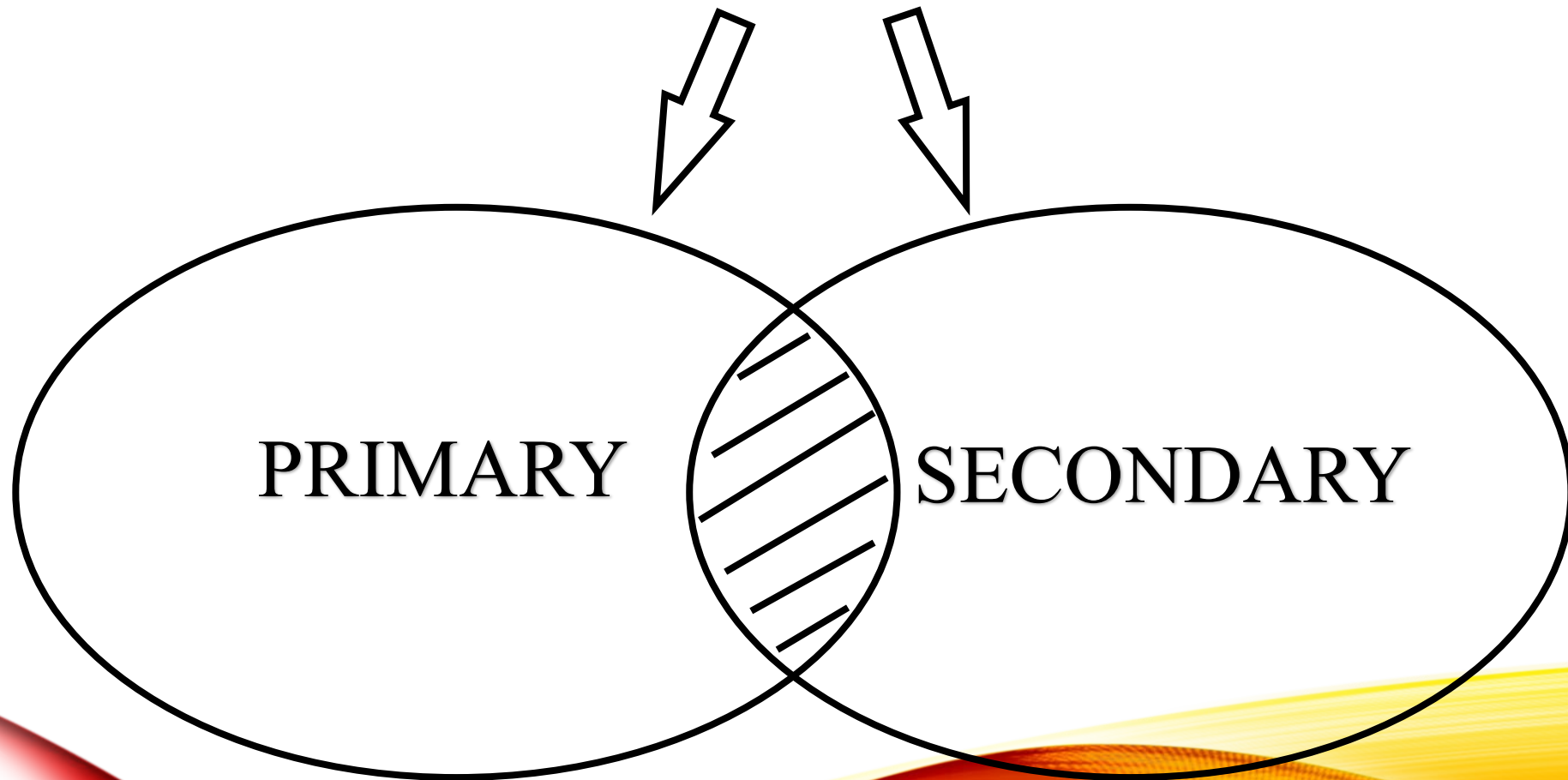
# SKIN EXAMINATION



**THE WHOLE BODY SHOULD BE EXAMINED!**

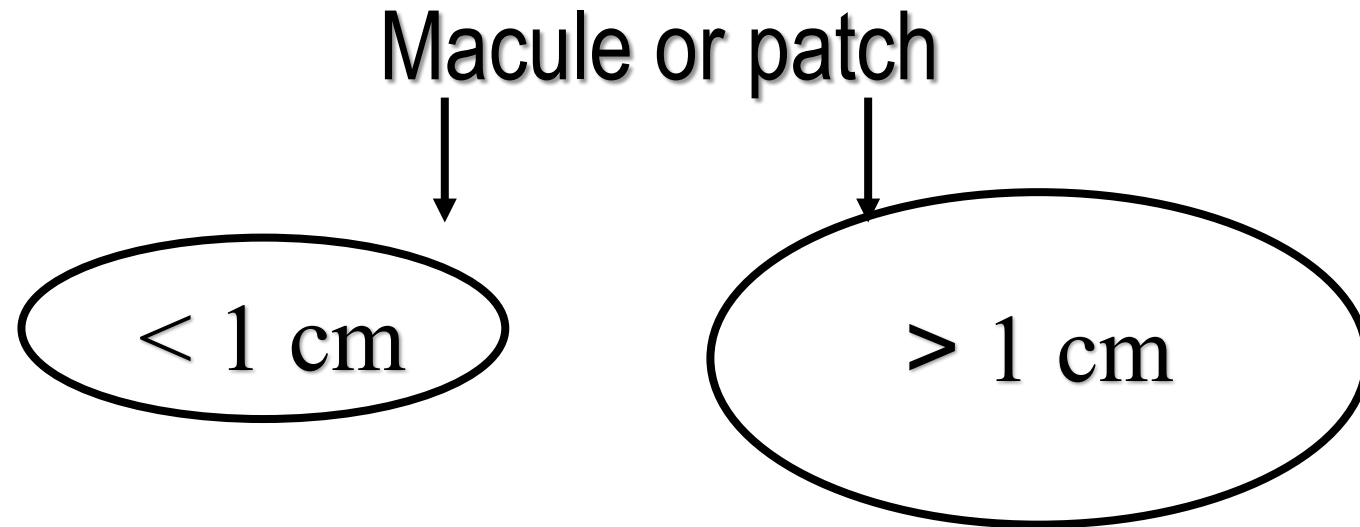


# TYPE OF LESIONS

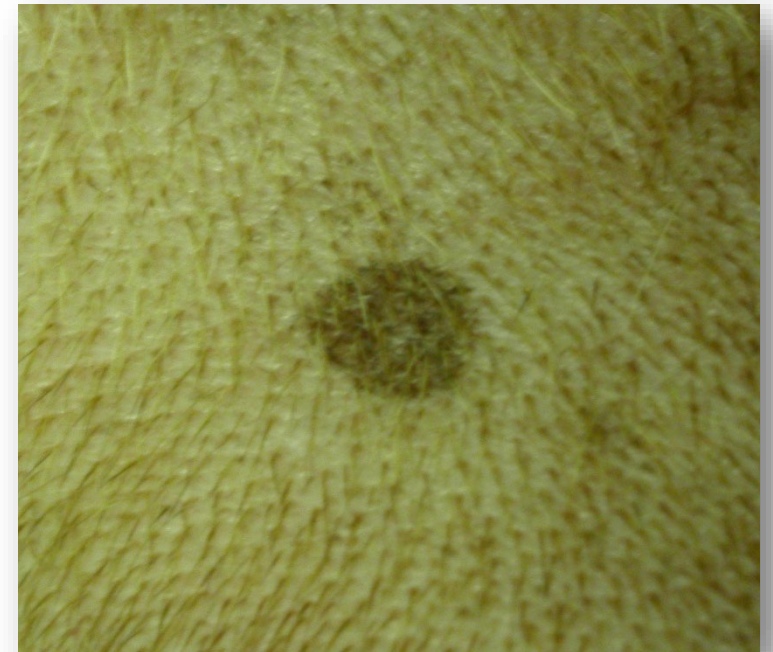


# PRIMARY: Macule and patch

Focal circumscribed nonpalpable spot of changing the skin color.



- Hyperpigmentation
- Depigmentation
- Erythema
- Focal hemorrhage (purpura).





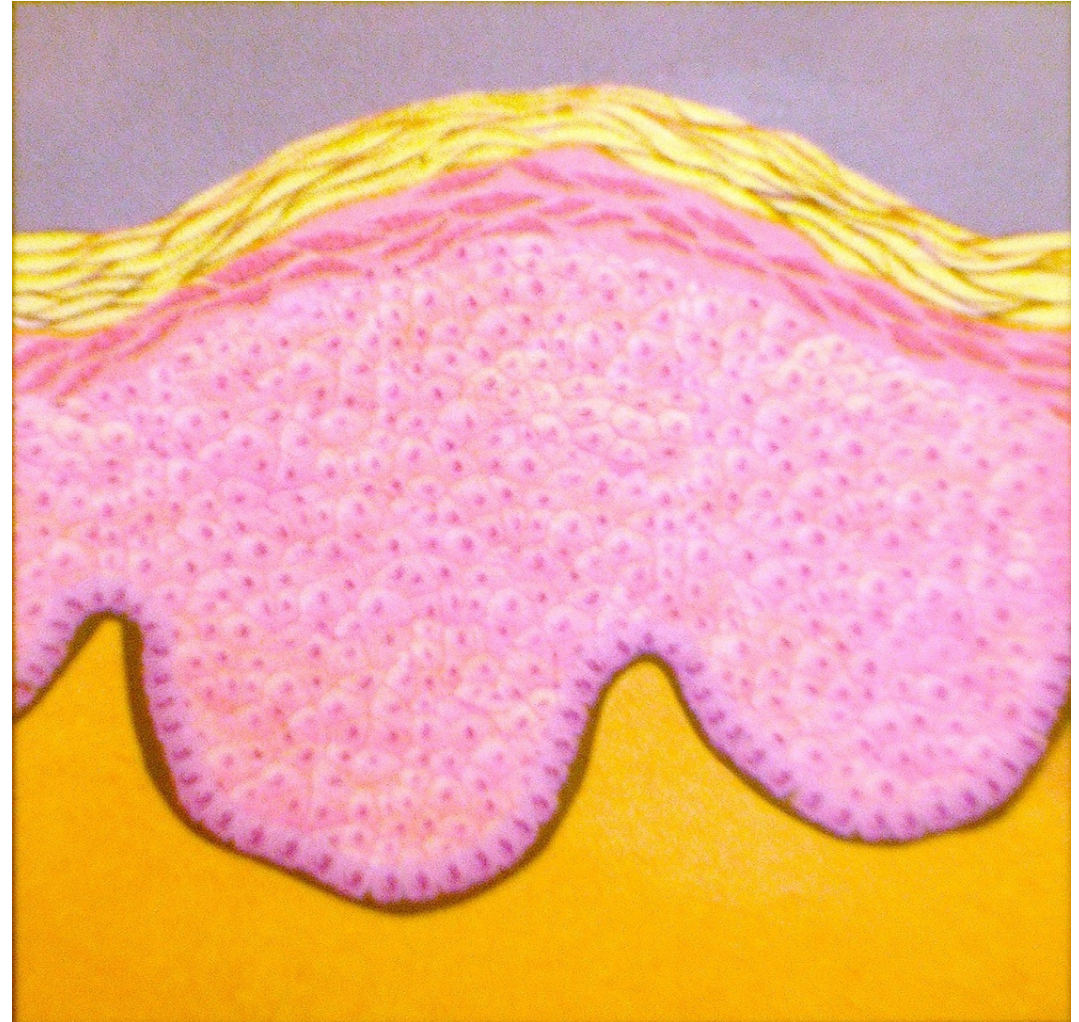
# HOW TO DISTINGUISH HEMORRHAGE AND ERYTHEMA?



## PRIMARY: Papule

Small solid palpable elevation of the skin up to 1 cm in diameter

- Accumulation of the inflammatory cells
- Focal hyperplasia
- Early neoplasia.





## PRIMARY: Papule

- **Pyoderma**

- Scabies
- Flea allergy dermatitis
- Demodicosis
- Mosquito bite hypersensitivity.





# PRIMARY: plaque

Larger, flat-top elevation formed by coalition and fusing of papules



- Pyoderma
- Eosinophilic plaque
- Kerion (dermatophytosis)
- Flea allergy dermatitis
- Mosquito bite hypersensitivity.



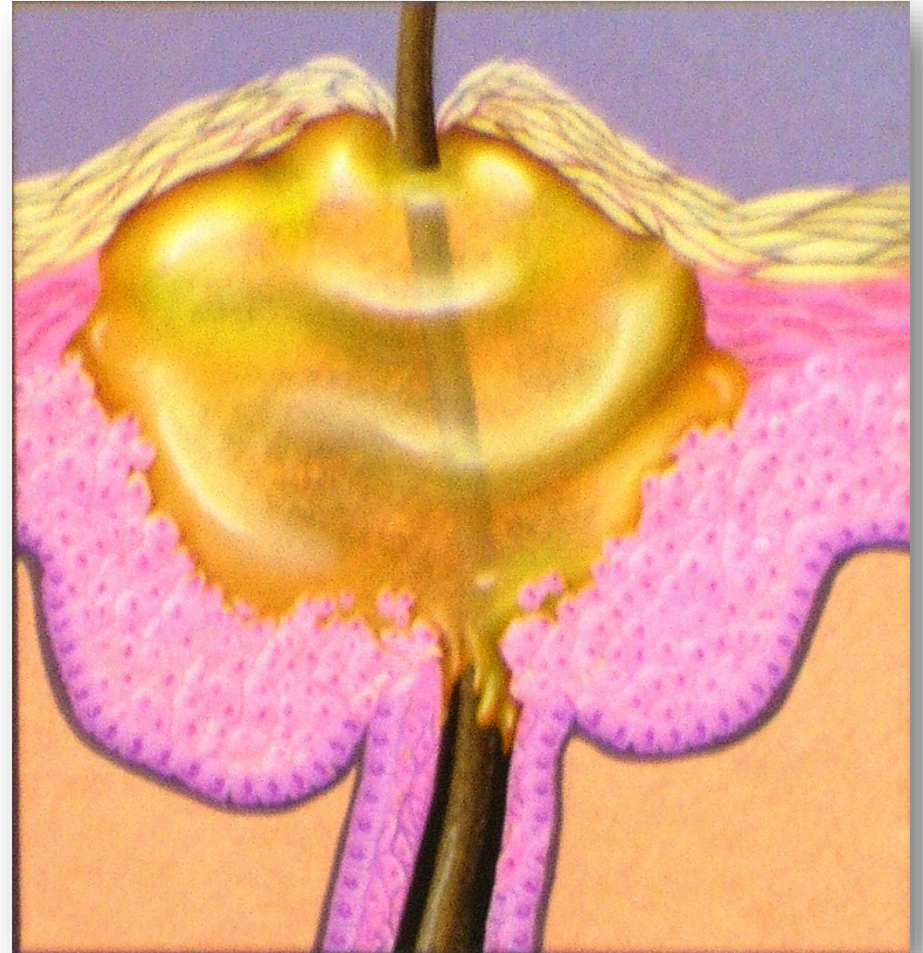
# PRIMARY: Pustule and abscess

Pustule – small circumscribed elevation filled with pus.

- Intraepidermal
- Subepidermal
- Follicular or non-follicular.

Abscess - Intradermal or subcutaneous pus accumulation

- Larger and deeper than pustule.



# PRIMARY: Pustule

- PYODERMA
- 
- Dermatophytosis
  - Pemphigus foliaceus.

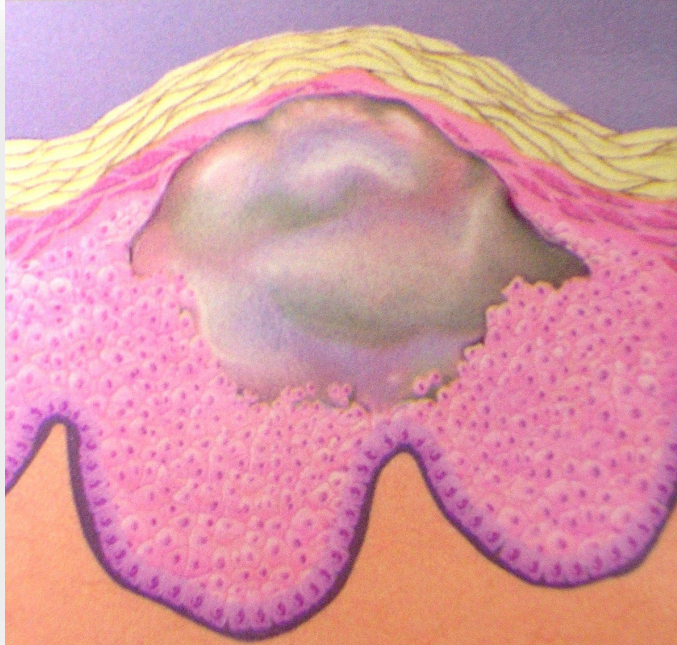




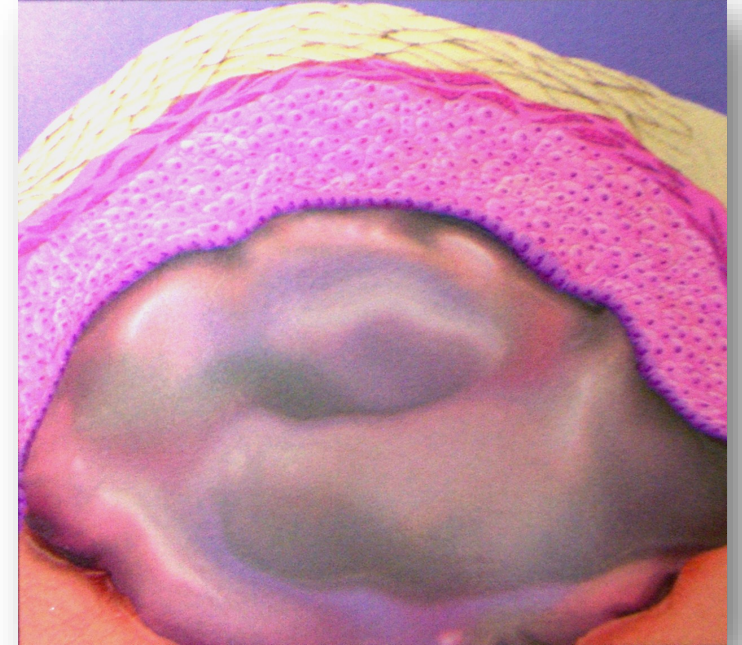
# PRIMARY: Vesicle and bulla

Small circumscribed elevation filled with clear fluid

- Intraepidermal
- Subepidermal.



Vesicle larger than 1 cm  
Usually deeper than vesicle  
Commonly appear to be abscesses.



# PRIMARY: Vesicle and bulla

- Burns
- Immune-mediated dermatitis
- Viral skin diseases
- Mucinosis – in shar-pei dogs.



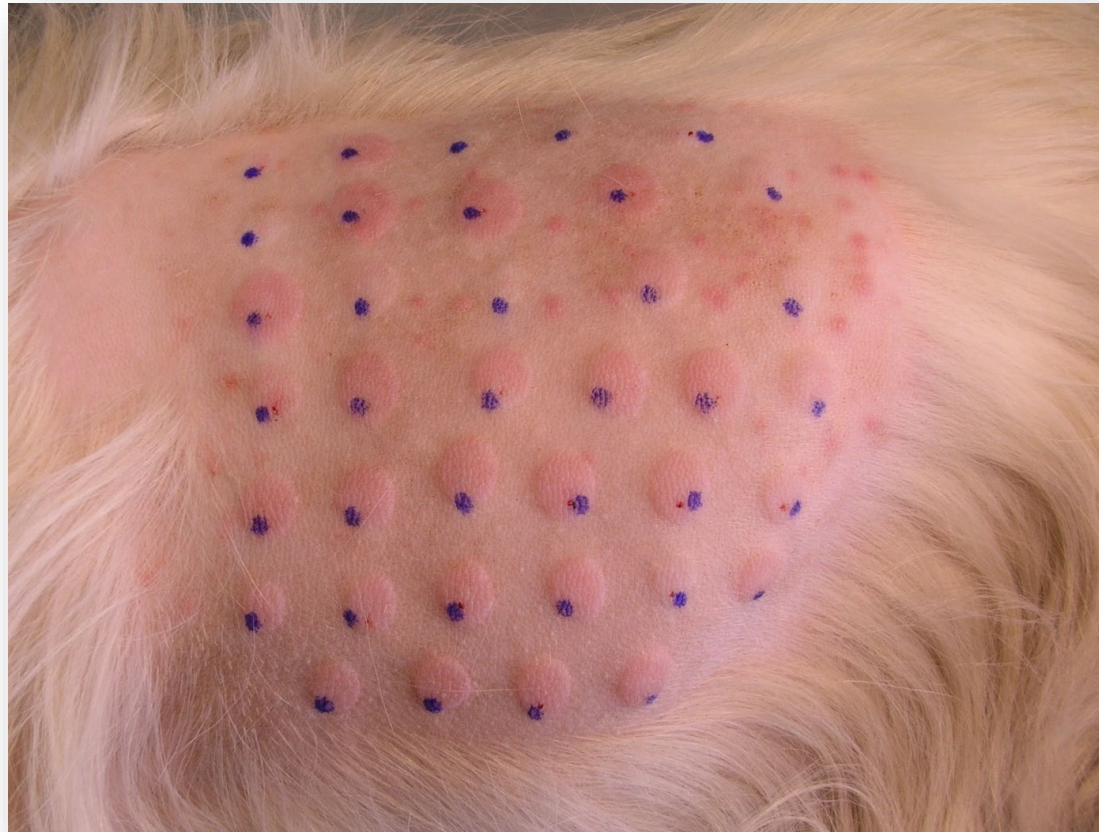


# PRIMARY: Wheal

Well circumscribed raised flat edema which appears and disappear in minutes/hours.

## Intercellular edema

- Urticaria
- Arthropod bites
- Other types of hypersensitivity
- Drug reactions.

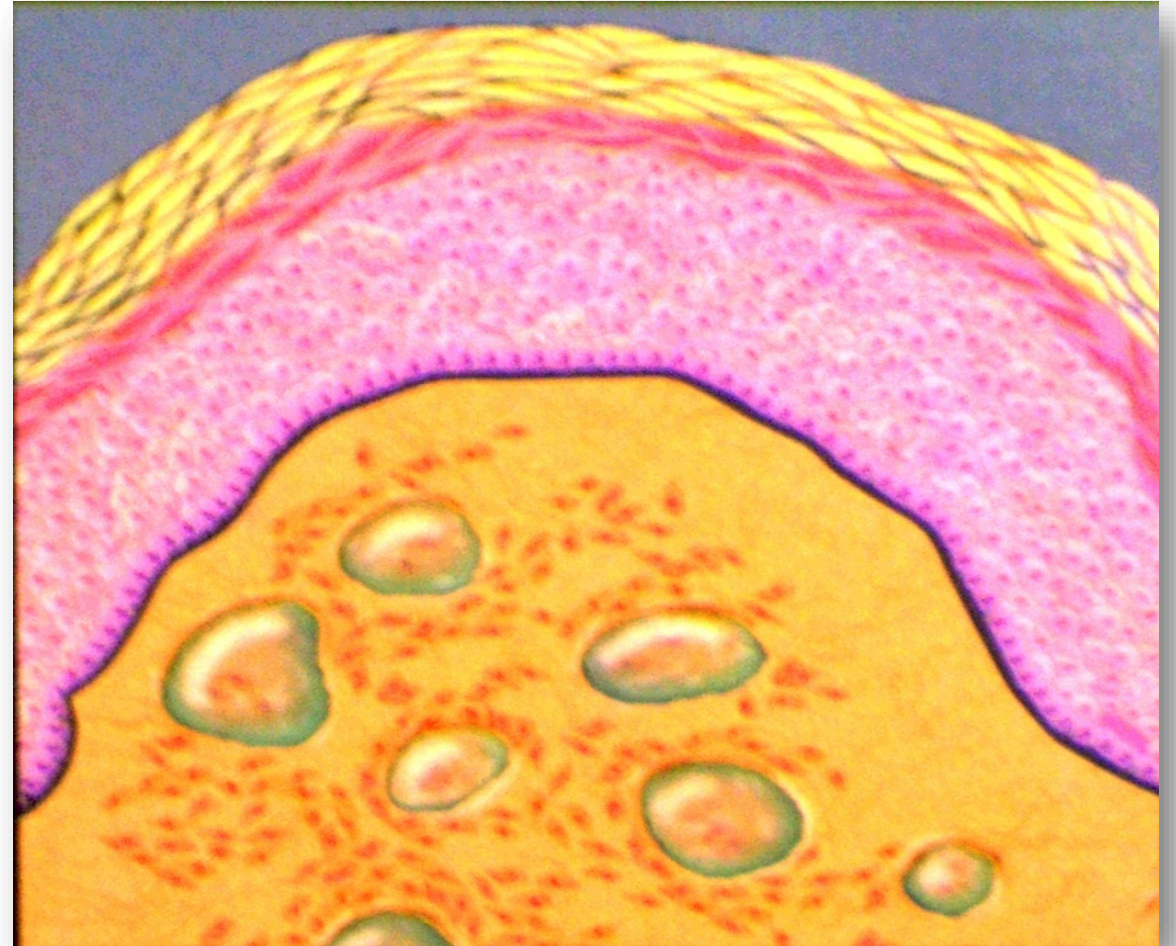




# PRIMARY: Nodule

Firm palpable elevation of the skin larger than 1 cm in diameter, usually deeply located.

- Massive infiltration by inflammatory or neoplastic cells.





# PRIMARY OR SECONDARY: ALOPECIA AND HYPOTHRICHOSIS



*Kuznetsova Ekaterina*





# ALOPECIA – CLINICAL ASSESSMENT



Self-induced



Pruritus



Parasites  
Allergies

Spontaneous



Focal/multifocal



Pyoderma  
Demodicosis  
Dermatophytosis



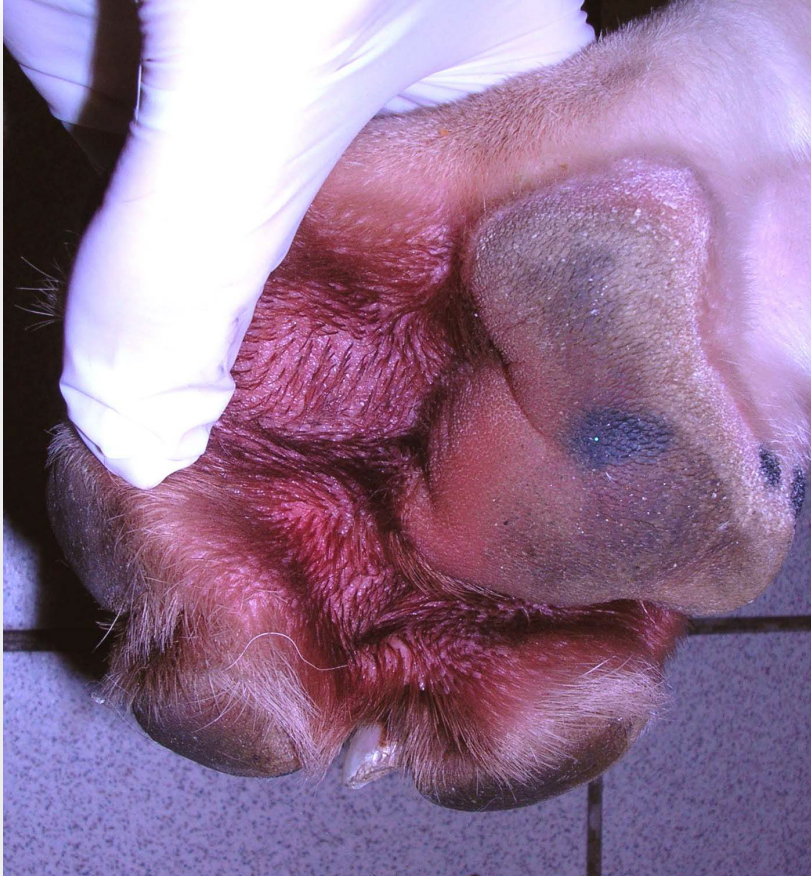
Diffuse



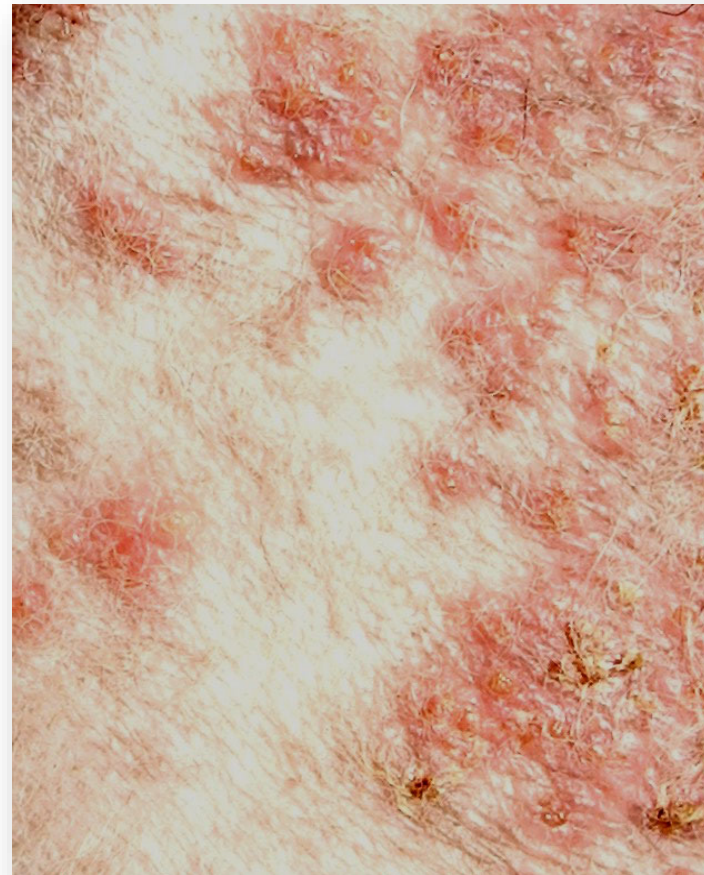
Endocrine diseases  
Telogen/anagen arrest  
Follicular dysplasia

# ERYTHEMA

- Primary
  - Allergy



- Secondary
  - Pyoderma





# PRIMARY OR SECONDARY: SCALES AND FOLLICULAR CASTS





# FOLLICULAR CASTS AND SCALES

## Primary

- Cornification disorders:
  - Primary “seborrhea”
  - Ichthyosis
- Sebaceous adenitis.

## Secondary

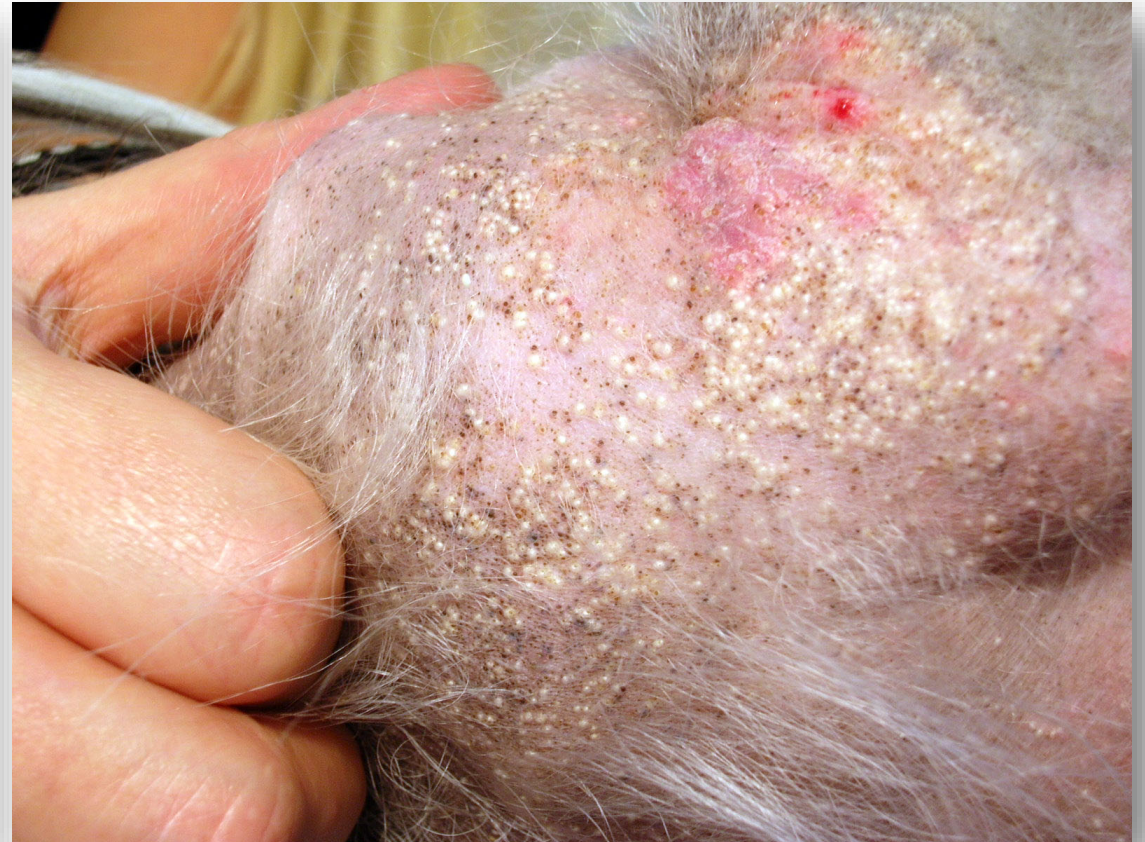
- Folliculitis
- Allergy
- Cheyletiellosis
- Demodicosis
- Leishmaniosis.

# PRIMARY OR SECONDARY: COMEDONES





# PRIMARY OR SECONDARY: COMEDONES



# PRIMARY OR SECONDARY: COMEDONES

## Primary

- Feline acne
- Endocrine diseases
- Schnauzer comedo syndrome

## Secondary

- Demodicosis
- Dermatophytosis.

# PRIMARY OR SECONDARY: LEUKODERMA AND LEUKOTRICHIA

## Primary

- Vitiligo
- Cutaneous lupus
- Alopecia areata.

## Secondary

- Post-inflammatory
- Post-trauma.



# PRIMARY OR SECONDARY: HYPERPIGMENTATION

## Primary

- Lentigo



## Secondary

- Post-inflammatory

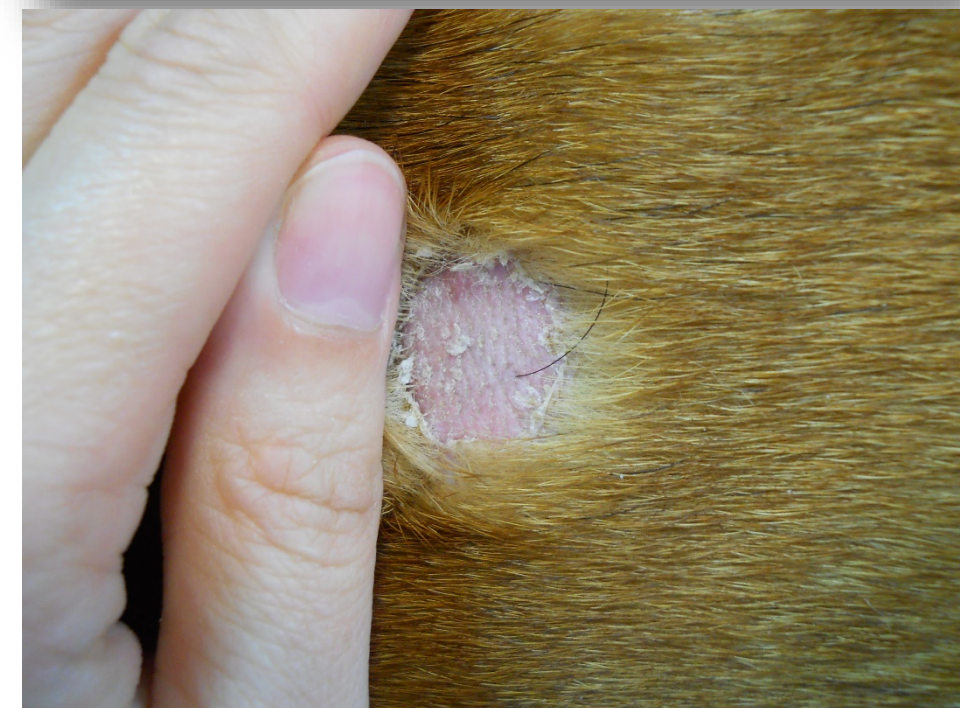




## SECONDARY: CRUST AND EPIDERMAL COLLARETTE

Keratinocytes, sebaceous gland secret and debris with exudate or blood.

- Pyoderma
- Pruritus
- Many others...



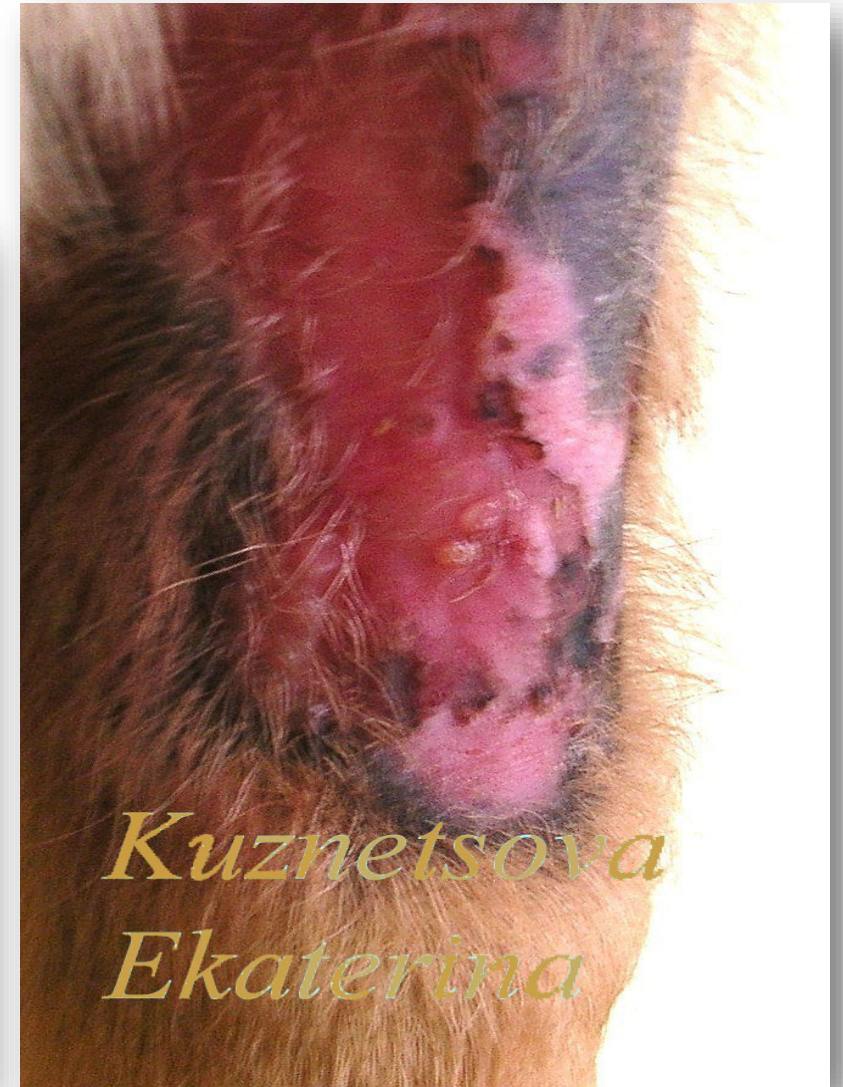
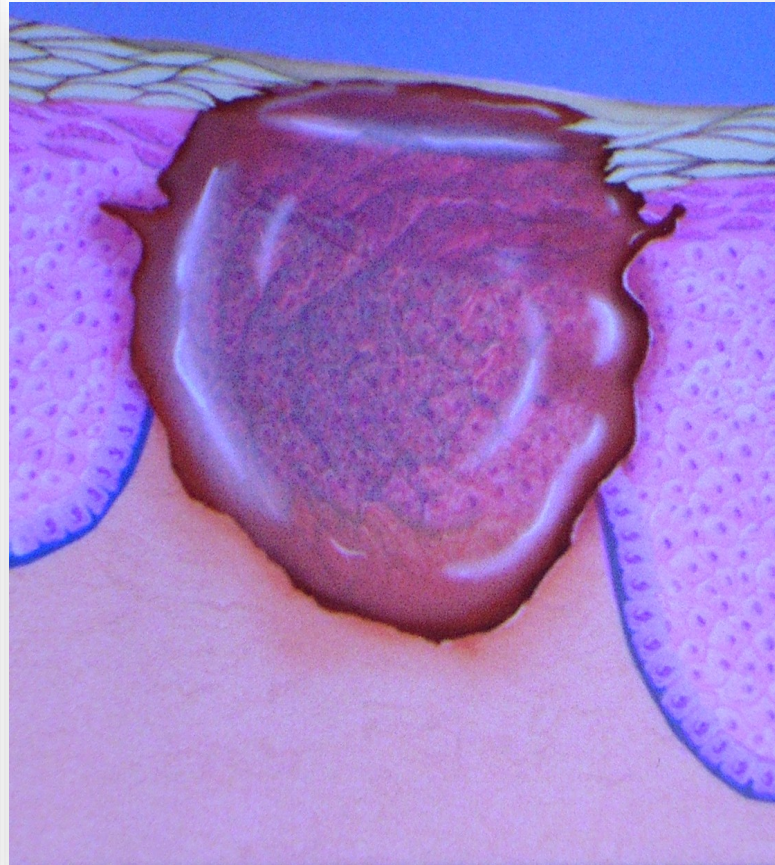


## SECONDARY: SCAR AND EXCORIATION





## SECONDARY: EROSION AND ULCER



*Kuznetsova  
Ekaterina*



## SECONDARY: LICHENIFICATION



*Kuznetsova Ekaterina*

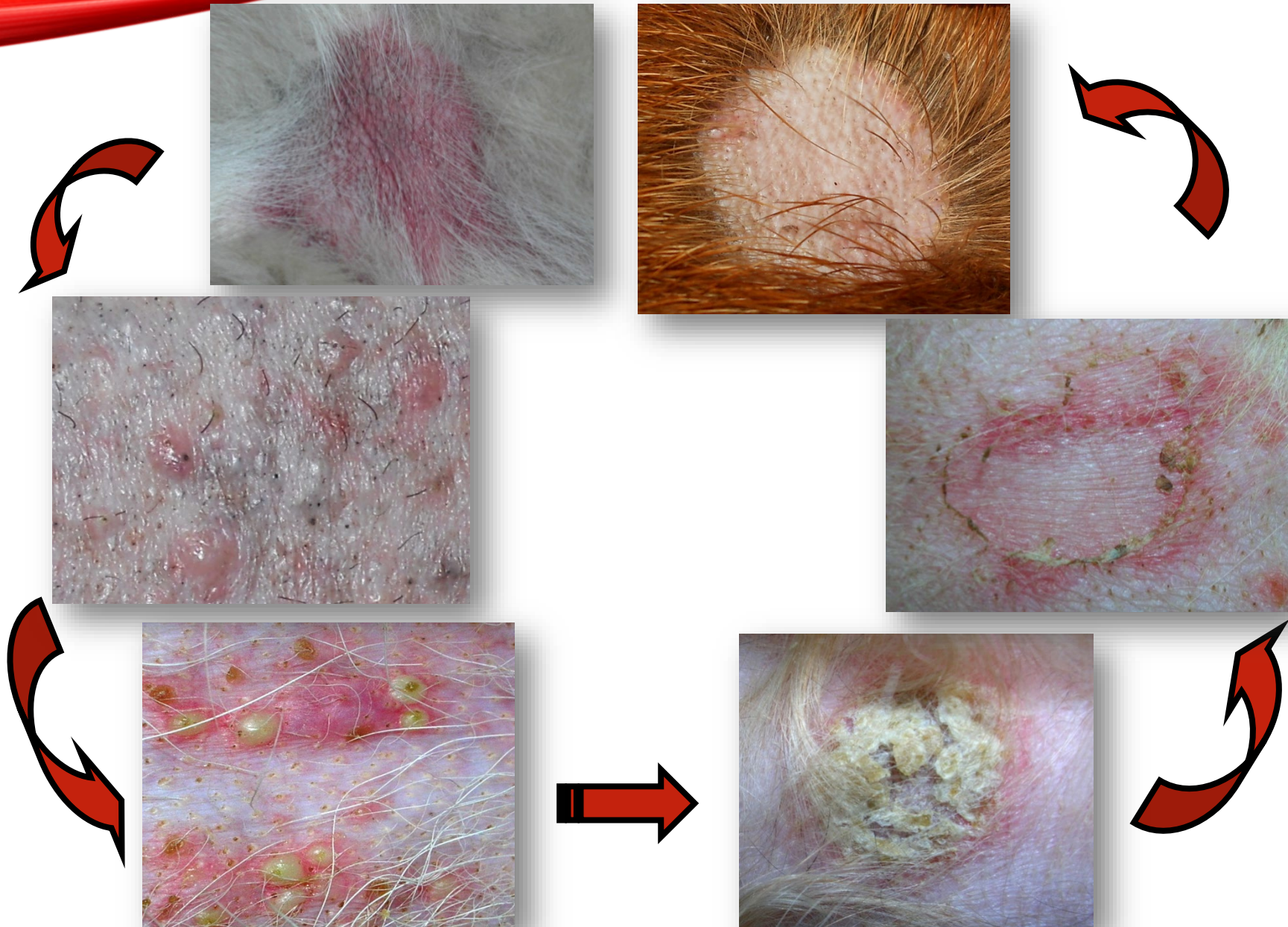


## SECONDARY: DRAINING TRACT





# LESION STAGES



# EXAMPLES OF THE MAIN PROBLEMS

- Pustule dermatitis (papules, pustules, crust, spontaneous focal alopecia, epidermal collarettes, erosions with crusts)
- Deep abscess dermatitis (nodules, draining tracts, ulcers)
- Pruritus (erythema, self-induced alopecia or hypotrichosis, excoriations)
- Otitis (discharge from the ears, erythema and edema in the ear canals)
- Superficial pododermatitis (erythema, pruritus or lichenification on the paws)
- Deep pododermatitis (nodules and draining tracts on between the toes)
- Spontaneous diffuse alopecia
- Keratinisation disorder/seborrhea (scales, follicular casts, comedones)
- Skin / mucosal depigmentation (leukoderma focal or diffuse, leukotrichia)
- Hyperpigmentation (pigmented macules or patches or diffuse hyperpigmentation)
- Vesiculobullous dermatitis
- Erosive/ulcerative dermatitis of mucosal or mucocutaneous areas
- Nodule dermatitis
- Miliary dermatitis (in cats – small crusted papules)
- Otitis
- Cheilitis (lip inflammation)
- Skin fold dermatitis (in diagnosis will be as intertrigo).

# WHAT IS NEXT?

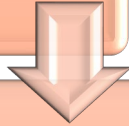
History

Skin lesions

Main problems

Differential diagnoses

Diagnostic tests





# DIFFERENTIAL DIAGNOSES

## CASE #1

Pustule  
dermatitis

Pruritus

Otitis

- Pyoderma
- Food adverse reactions
- Atopic dermatitis
- Microbial otitis

# DIFFERENTIAL DIAGNOSES

## CASE #2

Deep abscess  
pododermatitis

Comedones

Spontaneous  
multifocal  
alopecia

- Deep pyoderma / bacterial furunculosis
- Foreign body reaction
- Demodicosis
- Bacterial folliculitis / pyoderma



# WHAT IS NEXT?

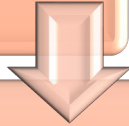
History

Skin lesions

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Differential diagnoses

Diagnostic tests



# HOW TO CHOOSE THE RIGHT TEST?

Pyoderma  
Microbial otitis

- Cytology

Flea bite allergy  
Food adverse  
reactions  
Atopic dermatitis

- Strict flea control
- Diet trial for 6-8 weeks
- Ruling out other causes of pruritus