Dermatologic Examination

A dermatologic examination requires adequate lighting, a systematic and thorough approach, and should always include a general physical examination. Observation from a distance should be followed by close inspection of skin and mucous membranes. Start at the head, inspect the lips, mouth, eyes, ears visually, but also use your hands to evaluate the neck and the trunk; examine the hairs and skin of mane and tail, lift up the tail to inspect the perianal area, and then each leg to inspect the frog and sole of each hoof.

General Observation

Localized or Generalized problems

✓ If the skin lesions are focal, and localized to one area, consider an infectious cause such as for example pythiosis, phaeohyphomycosis, or pseudomycetoma due to dermatophytes.

✓ Cutaneous neoplastic diseases are typically localized, at least initially.

✓ Generalized disorders are more commonly due to hypersensitivities or systemic conditions such as immune-mediated skin diseases.

Symmetry

Systemic disorders such as allergies or pemphigus foliaceus typically cause bilaterally symmetric lesions.

Asymmetric lesions more commonly have external causes such as dermatophilosis or dermatophytosis.

Haircoat Quality, Color, and Shine

✓ Is the haircoat dull or shiny? A dull haircoat may be due to primary metabolic disease, external parasites, nutritional deficiencies, or may develop with chronic skin disease.

✓ Are there coat or mane/tail color changes and if so, did they develop with initial skin lesions or after those lesions had been present for a while. Hair color changes can be the consequence of chronic or severe inflammation or a primary disorder.

✓ Changes in the hair quality (either to a coarse coat or to a fine coat) are suggestive of hormonal disease or follicular dysplasia.

After a general examination begins a detailed inspection of the skin and mucous membranes. Special attention should be paid to individual lesions. Try to differentiate primary from secondary lesions. Primary lesions are initial eruptions caused directly by the underlying disease process. Secondary lesions evolve from primary lesions or are caused by the horse (self-trauma) or environment (medications). Differentiating primary from secondary lesions is important to understand the underlying pathomechanism and to formulate a relevant list of differential diagnoses.

Primary Lesions

Macule

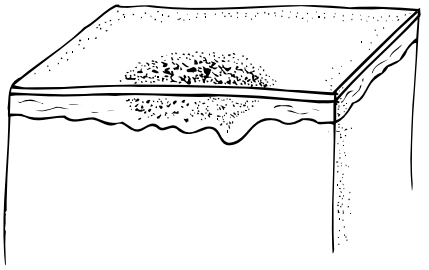

Figure 1-1A
Definition: A focal, circumscribed, non-palpable change in color up to 1 cm in diameter. (A lesion > 1cm is termed a patch.)

Pathogenesis: Pigmentation change due to decreased or increased melanin production, erythema due to inflammation, or local hemorrhage due to trauma or vasculitis.

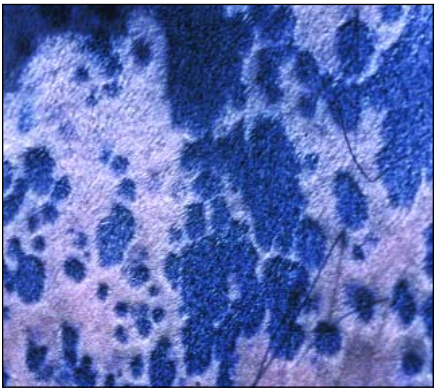

Figure 1-1B
Differential diagnoses - depigmentation: Vitiligo, "Lupus erythematosus-like syndrome," Arabian fading syndrome.

Differential diagnosis -erythema: Inflammation due to a variety of underlying diseases (blanches with diascopy, when a slide is pressed onto the erythematosus lesion) or hemorrhage due to vasculopathies or coagulopathies (does not blanch on diascopy).

Papule

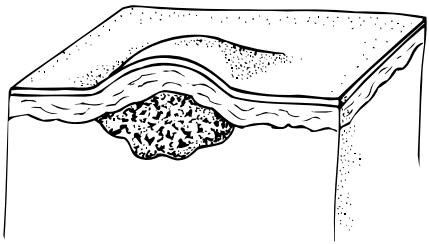

Figure 1-2A
Definition: A solid elevation of up to 1 cm in diameter. Larger lesions are called *plaques*.

Pathogenesis: Influx of inflammatory cells into the dermis, focal epidermal hyperplasia, early neoplastic lesions.

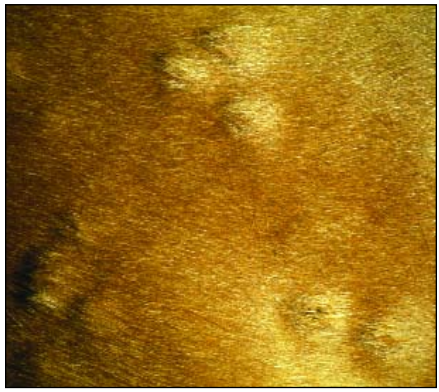

Figure 1-2B
Differential diagnosis: Bacterial folliculitis, fungal folliculitis, *Culicoides* hypersensitivity, scabies, contact allergy, erythema multiforme, drug eruption.

Pustule

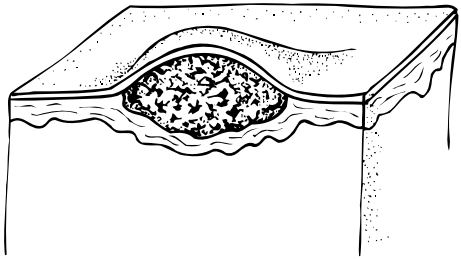

Figure 1-3
Definition: A small circumscribed area within the epidermis filled with pus.

Pathogenesis: Most pustules are filled with neutrophils, but eosinophilic pustules may also be seen. Aspiration cytology and biopsy are indicated. Pustules are very rarely seen in horses.

Differential diagnoses: Bacterial infection, fungal infection, immune-mediated skin disease.