How to make a diagnosis in equine dermatology

Marianne M. Sloet van Oldruitenborgh-Oosterbaan

Department of Equine Sciences
Faculty of Veterinary Medicine
Utrecht University
Remember

Recognition is the easiest and cheapest way of diagnosing skin disease!
recognition

educated supposition

use of appropriate test(s)

confirmation of tentative diagnosis
Clinical approach

- signalment
- anamnesis (history)
- clinical examination
- problem list
- additional tests
Signalment

- breed
- age
- gender
- colour
Anamnesis (history)

- since when does the problem exist?
- how did it start and at which location?
- did initial lesions suddenly appear?
- how did first lesions look like?
- is there pruritus?
- method of grooming?
- one or more animals affected?
- are humans affected?
- treatment(s) and effect?
- specific management and routine procedures?
Clinical examination

- general overview
- examination of the normal body systems
- dermatological examination
  - general inspection
  - local inspection of focal lesions
General inspection

- type of coat
- attachment and disposition of the hairs
- coat density
- sheen and colour of the hairs
- presence or absence of pain at lesions
Local inspection of lesions

- number and configurations
- distribution over the body
- size, shape and depth of the lesions
- nature of the lesions (moistness, exsudate etc.)
problem list

tentative diagnoses
Remember

Recognition is the easiest and cheapest way of diagnosing skin disease!
Additional tests

- microscopic examinations for parasites, bacteria, fungi and hairs
- bacteriological and fungal cultures
- PCR for viruses and bacteria
- skin biopsy (aspiration, punch, wig)
- intradermal skin test
- haematology and blood biochemistry
- other blood tests
Additional tests

- microscopic examinations for parasites, bacteria, fungi and hairs
- bacteriological and fungal cultures
- PCR for viruses and bacteria
- skin biopsy (aspiration, punch, wig)
- intradermal skin test
- haematology and blood biochemistry
- other blood tests
Kweekuitslagen huid paard
n=31

- *S. aureus* n=20
- Streptococcen n=9
- Dermatophilus n=2
- Pseudomonas n=2
- Mengcultuur n=2
Ulcerative lymphangitis

*Corynebacterium pseudotuberculosis*
Taking a specimen for fungal culture
Additional tests

- microscopic examinations for parasites, bacteria, fungi and hairs
- bacteriological and fungal cultures
- PCR for viruses and bacteria
- skin biopsy (aspiration, punch, wig)
- intradermal skin test
- haematology and blood biochemistry
- other blood tests
nemen van een aspiratiebioopt
Guidelines for skin biopsy

- take multiple biopsy specimens
- sample most representative lesions
- take punch biopsy as gently as possible
- wedge biopsy may be necessary
- preferably - horse should not be treated
- find for the examination a “specialist”
Skin biopsy practice

- restrain the horse (twitch, sedative)
- prepare biopsy site if necessary
- give local anesthetic subcutaneously and leave needle in place
- do not include normal skin
- rotate punch in only one direction
- place sample immediately in fixative, but do not damage the specimen
- do not suture biopsy site
Additional tests

- microscopic examinations for parasites and fungi
- bacteriological and fungal cultures
- skin biopsy
- intradermal skin test
- haematology and blood biochemistry
- other blood tests
C. nubeculosus
Additional tests

- microscopic examinations for parasites and fungi
- bacteriological and fungal cultures
- skin biopsy
- intradermal skin test
- haematology and blood biochemistry
- other blood tests
Conclusion

Choose an appropriate test to confirm your tentative diagnosis.