DERMATOLOGY

Course Organiser: F Constantino-Casas

Lecturers: ME Herrtage, J Dobson, M Reading, F Constantino-Casas

Terms: Lent

Aims:
- To enable the student to understand the diagnostic approach to cases of skin disease in all animal species.
- To be able to obtain a useful case history, instigate appropriate diagnostic investigations.
- To understand the underlying pathological principles and agents apposite to these tests and to arrive at a diagnosis.
- To be able to offer appropriate advice and treatment.

Objectives:
At the end of teaching in this programme the student should:

- be familiar with the structure and function of normal skin and of the basic patterns of pathological change that occur in skin disease.
- understand the skin and hair cycle and the influence of the endocrine system on this and its significance in the diagnosis and therapy of skin disorders.
- understand the role of parasites and microbiological agents in the production of skin disease.
- understand how the immune response to different agents may lead to skin disease.
- be able to choose and interpret appropriate laboratory tests for the diagnosis of skin disease.
- be able to offer appropriate advice and therapy for skin conditions.
- be familiar with the common causes of neoplasia affecting the skin and soft tissues, their diagnosis and treatment.

Pre-requisites:

- A basic understanding of the structure and functions of the integumentary system is assumed from the preclinical courses.
- A basic understanding of pathological processes such as inflammation as presented in year 2 of the preclinical course.
- Basic Infectious Diseases as presented in the preclinical course in year 2 and the Biology of Infectious disease course.
Lecture List:

1. **Pathological basis of skin disease 1**  
   FCC  
   This lecture discusses the structure and function of skin. Skin and hair Cycle. Morphological changes: including endocrine effects on skin. Basic pathological changes in the skin, recognition of the pattern of the changes and its significance in diagnosis, including biopsy interpretation. Introduction to the self teaching slide set designed to complement the lectures throughout the course and illustrate the pathology of the conditions discussed.

2. **A logical approach to skin disease**  
   MEH  
   This lecture discusses the importance of a full history and clinical examination in the diagnosis of skin disease. A systemic investigation of pruritic skin disease will be described including the choice of diagnostic tests and their interpretation.

3. **Pathological basis of skin disease 2**  
   FCC  
   Pathology of infective diseases of the skin. Building on the material in the Biology of Infectious disease course this lecture discusses specific examples of infectious disease are used to illustrate basic pathological principles including, Poxviruses: cowpox esp. in cats, pseudocowpox, myxomatosis, swinepox (sheep and goat pox). Bacterial disease - exudative epidermitis, acid fast granulomas. Fungal infections - dermatophytes.

4. **Parasitic and fungal disease of skin: clinical aspects**  
   MEH  
   Diagnosis and treatment of ectoparasitic diseases, dermatophytosis (ringworm), candidiasis and deep mycotic infections.

5. **Bacterial disease - Clinical aspects 1**  
   MEH  
   Diagnosis and treatment of surface pyoderma and superficial pyoderma.

6. **Bacterial disease - Clinical aspects 2**  
   MEH  
   Diagnosis and treatment of deep pyoderma and furunculosis.

7. **Allergic disease**  
   MEH/FCC  
   Clinical aspects, diagnosis, treatment and management of atopic disease, food hypersensitivity and contact dermatitis including integrated diagnostic pathology.

8. **Autoimmune disease**  
   MEH/FCC  
   Clinical aspects of diagnosis, treatment and management of pemphigus group of conditions and systemic and discoid lupus erythematosis, including integrated diagnostic pathology.

9. **Other miscellaneous skin diseases**  
   MEH  
   Including seborrhoea, toxic epidermal necrolysis, panniculitis, miliary dermatitis, eosinophilic granuloma complex and hepatocutaneous syndrome.
10. Ear Diseases
Approach to ear disease in the dog and cat. Pathogenesis and aetiology of otitis externa. Rational management of otitis externa. Diagnosis and management of otitis media and otitis interna.

11. Clinical Pharmacology
Drugs used in the treatment of dermatological conditions. Dermatological formulations, antipruritic agents, topical glucocorticoids, antihistamines, progestagens, shampoos, essential fatty acids, antifungals.

12–13. Tumours of the skin
The incidence, aetiology, gross and microscopic appearance, and clinical behaviour of the common skin tumours in large and small animals, including: papilloma, basal cell tumours, squamous cell carcinoma, mast cell tumours, soft tissue sarcomas and equine sarcoids.

Practical component:
This course is complemented by 2x three-hour laboratory practical sessions.

The first practical will include examples of skin disease with photographs of clinical cases, their case histories, laboratory data including examples of bacteriology, mycology and histopathology. The second practical will have similar format and will include neoplasia of the skin. The examples for both practicals will be problem solving exercises requiring basic recognition of pathological changes and the clinical syndromes described and illustrated. The sessions will finish with a final seminar discussion.

Practical tuition will be further extended in the clinical rotation tuition in the clinics.

Comment:
This is a basic course covering pathological aspects common to all species but with the clinical emphasis on small animals. Some further reading may be required to cover species disorders, particularly in the farm animal and equine area. Skin diseases will be covered in these species courses.

Handouts:
Handouts are provided for all lectures covering core material, except where indicated that the information is for reference purposes only.

Further reading and reference:


