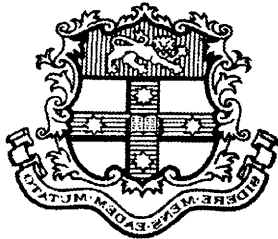


Gross Pathology of Ruminants

Proceedings 350

9-11 April 2003

Elizabeth Macarthur Agricultural Institute
Camden NSW Australia



Published by:
Post Graduate Foundation
in Veterinary Science
University of Sydney

Michele Cotton
Acting Director
Conference Centre
Building B22, Regimental Crescent
University of Sydney NSW 2006
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He has supervised over 25 graduate students, many from overseas countries. His research collaborations included joint projects with Japanese researchers on the epidemiology of echinococcosis (hydatid disease); with PNG and Indonesian vets on the epidemiology of animal trypanosomiasis ("surra"); consultancies in PNG on parasitic diseases of farmed crocodiles; and

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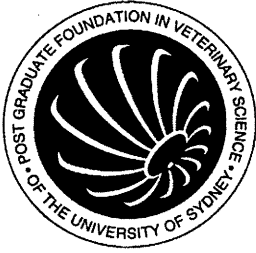
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Keith is a registered specialist in NSW in veterinary pathology with over 30 years field and laboratory based experience in the diagnosis of disease in farm animals. His doctoral thesis described a phytotoxic myopathy in grazing sheep. He is currently the officer in charge of the Regional Veterinary Laboratory Menangle at EMAI Camden.

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Gross Pathology of Ruminants

9-11 April 2003

Elizabeth Macarthur Agricultural Institute

Wednesday 9 April 2003

9.00am – 10.00am Keith Thompson

Alimentary Tract

This lecture will be an illustrated review of gross lesions of infectious and non-infectious diseases of the alimentary tract in cattle, sheep and deer. The emphasis will be on diseases of importance to Australia and New Zealand. The selection of samples for laboratory testing will also be discussed.

10.00am – 10.30am Morning Tea

10.30am – 11.10am Keith Thompson

Bones/Joints

The diagnosis of skeletal diseases is perhaps more dependent on gross examination than is the case for any other organ system. This lecture will present a review of the gross lesions of a range of infectious and non-infectious diseases of bones and joints, including discussion of inherited skeletal diseases. The selection of appropriate samples for laboratory testing will also be discussed.

11.10am – 11.50am Phil Ladds

Lymphoreticular System

Although all elements of the lymphoreticular system will be covered, emphasis will be on lymph nodes, largely because of their significance in traditional meat inspection. Important gross features of the "normal" lymph node will first be addressed, noting the effect of age, then general reactions, non-infectious/non-neoplastic changes, lymphadenitis, and neoplasia, will be considered.

11.50am – 12.30pm Roger Cook

Cardiovascular System

A systematic approach to gross examination of the cardiovascular system and lesions associated with specific diseases will be illustrated.

12.30pm – 1.30pm Lunch

1.30pm – 2.30pm Roger Kelly

Liver

“Liver lesions are very common; clinical illness due to liver disease is relatively rare”. I think I once used this statement as the basis for a searching undergraduate examination question and, in consequence, had to wade through an awful lot of irrelevant verbiage from students who had missed the point. But during these workshops I think the quote will serve better to highlight the problems of distinguishing incidental from significant gross liver pathology. A practical session using abattoir material will help reinforce the principles that will be presented.

2.30pm – 3.30pm Keith Walker

Practical Session

The Post Mortem – Technique, equipment and collection of samples, demonstration and practice 3.30pm – 4.00pm *Afternoon Tea*

4.00pm – 5.00pm

Practical Session Continued..

Examination of the alimentary tract and collection of samples for Johne’s Disease - Keith Thompson and Keith Walker
The Liver – Roger Kelly
Examination of the Heart – Roger Cook

Thursday 10 April 2003

9.00am – 10.00am Phil Ladds

Reproductive Tract

Included in the lecture will be a discussion on how best to obtain the reproductive tract at a necropsy or slaughter, followed by a description of a standardised procedure for dissection and examination of both male and female tracts. Also, covered will be a consideration of what specimens need to be collected, and in what manner, to permit further laboratory investigations.

10.00am – 10.30am *Morning Tea*

10.30am – 11.10am Roger Cook

Foetal and Neonatal Diseases

The gross lesions associated with diseases of the foetus and neonate will be illustrated

11.10am – 11.50am Keith Walker

Skeletal Muscles

This session will focus upon the gross pathological findings in congenital, degenerative, inflammatory and neoplastic diseases of ruminant skeletal muscle. Photographs and fresh specimens will be used to illustrate key points.

11.50am – 12.30pm Tony Ross

Skin

A large diagnostic potpourri of developmental, deficiency, toxicological, bacterial, fungal, viral, parasitic, photobiological, neoplastic and foreign body conditions of the skin of sheep, goats, cattle, deer and camelids including the important vesicular diseases will be presented.

12.30pm – 1.30pm Lunch

1.30pm – 2.30pm Deborah Middleton

Exotic Diseases

Australia prides itself upon its freedom from many major diseases of economic livestock. If any of these diseases gain entry to the country, early recognition by field veterinarians will be of paramount importance in our efforts at eradication. The information and pictorial material presented during this session will greatly enhance your ability to recognise these diseases in the paddock on the farm.

2.30pm – 3.30pm Ron Slocombe

Respiratory System

Respiratory diseases can cause major economic losses in different livestock production systems, particularly the cattle feedlot industry. Important diagnostic clues can often be obtained by a detailed gross examination of the respiratory tract. During this session, an exciting interactive learning process will considerably hone your skills in this area.

3.30pm – 4.00pm Afternoon Tea

4.00pm – 5.00pm Keith Thompson

Goats

Many goat farmers in Australia and New Zealand do not feel well served by the veterinary profession. In fact, some of them consider that they know as much about goat diseases as their veterinarian. Whether or not this is true, it is fair to say that most veterinarians are less familiar with diseases of goats than with diseases of other ruminants. Furthermore, the

published literature is not always helpful. Goats are more susceptible to some diseases than sheep and cattle, and less susceptible to others. They also have some diseases of their own. This lecture will present an illustrated review of goat diseases by a pathologist, who has been farming goats for the last 20 years.

Friday 11 April 2003

9.00am – 10.00am Clive Huxtable

Nervous System

The illustrated presentation will cover the diseases of the brain and, to a lesser extent, those of the spinal cord. Amongst others, "old favourites" such as polioencephalomalacia, focal symmetrical encephalomalacia, bacterial meningoencephalitis and phalaris staggers, will be included. The session will commence with a demonstration of how to locate key landmarks in the brain. Discussion then will focus upon where lesions may be found, how they may be recognised and how they reflect the nature of the disease process.

10.00am – 10.30am Morning Tea

10.30am – 11.10am Roger Kelly

Systemic Conditions Such As Anthrax, Tick Fever And Clostridial Diseases

Gross post-mortem findings in severe systemic diseases such as septicaemias, tick fevers and clostridial toxæmias are often confusingly non-specific. This is in part due to the acute nature of these conditions, which allows insufficient time for more localised and specific lesions to develop. Another reason is the final common pathways of circulatory shock and disseminated intravascular coagulation that help kill the animal. This presentation will offer a deductive approach to interpretation and diagnosis of these cases, and will attempt to demonstrate how this approach can influence decisions about their subsequent management.

11.10am – 11.50am Clive Huxtable

Urinary Tract

The location and recognition of important lesions and the nature of the underlying disease process will be addressed. Amongst the conditions to be covered will be urolithiasis, acute nephrotoxicity, nephritis, "white spotted kidney", amyloidosis, enterotoxaemia and lymphoma.

11.50am – 12.30pm Stephen Love and Gareth Hutchinson

Parasitic Diseases

The presentation will concentrate upon the gross pathology and diagnosis of gastrointestinal helminthosis in ruminants, with special emphasis on the economically important parasites of sheep, goats and cattle. Descriptions of the diseases will be augmented by transparencies/images, and by demonstrations in a practical session.

12.30pm – 1.30pm Lunch

1.30pm – 2.30pm Ross McKenzie

Plant Poisonings

Plant poisonings are often the last resort of the diagnostically destitute but they can cause spectacular losses amongst grazing ruminants. This session will cover most of the major plant toxicoses found in Australasia. Gross pathological findings will be highlighted but some information on pathogenesis and identification of plants also will be covered.

2.30pm – 3.30pm

Practical Session

Field parasitology techniques – Steven Love

Examination of lungs – Ron Slocombe

3.30pm – 4.00pm Afternoon Tea

4.00pm – 5.00pm

Practical Session Continued

Examination of reproductive tracts – Phil Ladds

Removal of brains for TSE exclusion – Roger Cook

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1. When viruses infect the respiratory system, viral titres rise for the first few days (upper panel) and then decline with the onset of immunity (lower panel). The ability of the lungs to clear bacterial pathogens (middle panel) is profoundly depressed for several days, leading to increased susceptibility to disease. This phenomenon has a number of causes, and is common to many types of viral infection. **(page 213)**
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