



Upcoming CPD Courses

Ovine Lameness with Joe Angell & Kate Hovers on Tuesday 22nd October

Here is a sample of some of the postmortem examinations we have undertaken in the last couple of months. We hope you find it interesting.

Systemic pasteurellosis, caused by *Bibersteinia trehalosii* infection, was diagnosed in two separate submissions during September. The first case involved a small group of purchased ewe-lambs where five animals had been found dead and vaccination had not yet been completed. The second incidence involved the death of 19 lambs, only vaccinated against clostridial diseases. Necropsy findings included classic epithelial necrosis of the larynx and oesophagus (Fig 1); the accumulation of straw-coloured fluid in the abdomen and serosal fibrin tags adhered to the intestines. Peripheral and thoracic lymph nodes were also enlarged and widespread ecchymotic haemorrhages throughout the carcasses. In both occasions, *B. trehalosii* was cultured from tissue.



Fig 1. Oesophageal lesions caused by *Bibersteinia trehalosii*

Prevention of systemic pasteurellosis is by vaccination, although managing other stressors (concurrent worm burden, gathering in adverse weather and transport) is also important in control.

Ovine pulmonary adenomatosis (OPA) was the cause of death of a two-year-old mule ewe, one of 20 poor doers to die in a flock of breeding ewes. A single dark grey tumour of diameter 10 cm was found in the right caudal lung lobe. OPA was confirmed by histology.

It was advised that poor doing ewes be removed from the flock because of the risk of further cases of OPA.

Purulent bronchopneumonia was found in a six-month-old ewe lamb, that was euthanased for PME. One other lamb had died in the group of 120 the previous week. The PME revealed numerous abscesses in both lungs. No bacterial growth was



Fig 2. Lung abscessation in a six-month old lamb

obtained but *Mycoplasma ovipneumoniae* and *M. arginine* infection were demonstrated by PCR. Both these mycoplasmas probably predisposed to the more chronic abscessation seen.

A further case of **Salmonella Typhimurium** infection in a sheep from Anglesey was diagnosed. Ten ewes had died in this flock of 600 before one was presented for PME. The carcass was very autolysed but as a precaution culture for *salmonella spp.* was carried out. Appropriate advice was given on the zoonotic risk of handling infected animals.

Haemonchosis was the cause of anaemia in a three-month-old goat kid, where two had died with diarrhoea. The carcass was pale and emaciated. The abomasal contents were watery and brown, and contained numerous *Haemonchus contortus* worms. There was also a pronounced hydropericardium and the blood had a watery appearance. A faecal worm egg count found 10,850 trichostrongyle-type eggs (per gram). This parasite is haematophagous and if left untreated, causes anaemia, ill thrift, subcutaneous oedema, exercise intolerance and death.

Johne's disease (*Mycobacterium avium subsp paratuberculosis*) was confirmed as the cause of poor condition in one of two ewes submitted for PME. Approximately 20% of the flock were said to be 'poor doers'. The ileal mucosa was thickened with marked corrugations on the surface.

A Kinyoun stained smear from the ileum revealed numerous clumps of acid-fast bacilli confirming the diagnosis (see Fig 3).

Animals suspected of having Johne's disease should be separated from the rest of the flock to minimise spread of the disease. Their offspring should not be retained for breeding because of the risk of their dams passing on the infection to them.

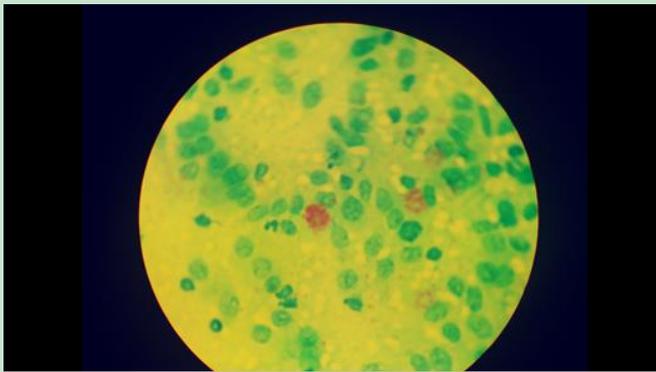


Figure 3. Acid-fast bacilli by Kinyoun staining

Campylobacter fetus venerealis intermedius was the cause of abortion in an autumn calving dairy herd where one of three recent abortions was submitted for investigation. *Campylobacter* sp can be linked to venereal infection where the bull is the most common source of infection. *Campylobacter* sp are often implicated as causes of infertility so screening of bulls was advised.

Parasitic gastroenteritis and Mannheimia haemolytica pneumonia were the cause of poor condition and death in a group of 25 lambs where seven had died. At PME there were irregular necrotic erosions in the proximal oesophagus and there were consolidated lung lobes.

Laboratory testing found 54,850epg of trichostrongyle-type eggs and immediate anthelmintic treatment was advised. *Mannheimia haemolytica* was cultured from the lung and was probably secondary to the poor condition of the lamb.

Navel ill, joint ill and peritonitis caused by E. coli was the cause of death of a week-old calf that had been seen the previous day with pyrexia, colic and sporadic bellowing. In house serum protein on the refractometer (at the practice) suggested poor colostral antibody transfer. At PME, the umbilicus was thickened

and contained pus, there was floccular fluid in the left hock joint.

Tick-borne Fever caused by the *Anaplasma phagocytophilum* was detected by PCR from an 18-month-old ewe lamb submitted after a history of ataxia. 15 ewe-lambs had been affected since the Spring. Gross PME was largely unremarkable but the spleen was enlarged, and abscesses were found adjacent to the spinal column. TBF was confirmed by PCR at Moredun Institute.

Clostridial myositis ('Blackleg') has been diagnosed on two occasions in the last week. In the first case, two unvaccinated six-month old calves were found dead outdoors, in a group of 34. The second case was in a group of 42 six-month old lambs where two had died. On both occasions, the carcasses presented with dry dark red (almost black) muscle with gas accumulation. A fluorescent antibody test (FAT) was positive for *Clostridium chauvoei*, confirming the diagnosis. Vaccination is an inexpensive means of avoiding this costly disease, but this should be given before the time of risk. Vaccination in the face of an outbreak runs the risk of further bruising and further cases. If vaccine is given, prophylactic antibiotic may need considering.

Cattle Modular CPD

11th Dec 2019 – Pre weaned calf, health & nutrition, scours & pneumonia in dairy & beef calves with Dai Grove-White

8th Jan 2020 – Beef reproduction, targets and bull fertility with DGW & Karin Mueller

5th Feb 2020 – Lameness with George Oikonomou

1st Apr 2020 – Dairy reproduction – Joanne Oultram

3rd Jun 2020 – Mastitis – Joanne Oultram

WVSC VIOs: Beverley Hopkins & Jon. King
Roger Daniel, Kate Hovers and Ian Davies

Wales Veterinary
Science Centre
Y Buarth, Aberystwyth,
Ceredigion, SY23 1ND



01970 612374



enquiries@wvsc.wales



http://www.wvsc.wales



walesvetscentre



@WVSCAber

Please check the eligibility for **free carcass collection** via this website:

ahvla.defra.gov.uk/postcode/pme.asp

The suitability of submissions for a postmortem exam. must always be discussed with the WVSC duty vet.