Canolfan Milfeddygaeth Cymru

Wales Veterinary Science Centre

NEWSLETTER
CYLCHLYTHYR

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Here is the Newsletter for December and January, we hope you find it interesting reading.

Clonic convulsions in a six-month-old calf lead to its euthanasia and submission for post mortem examination. Five animals had died in a group of 20, in this 260 cow suckler herd, during the last 12 months. The group had been housed for six weeks. At post mortem, the significant findings were; an acute pneumonia and a fibrinous polyarthritis. Examination of the brain under ultraviolet light revealed no autofluorescence. Histology of the brain revealed a meningioencephalitis with haematogenous spread of a bacterial pathogen, this also explained the polyarthritis. The most likely bacterial pathogen was thought to be *Histophilus somni,* although previous antibiotic treatment meant that the histopathologist could not confirm this.

IBR was diagnosed in an eight-month-old steer, one of two to die in a group of 90 bought-in beef animals, others had been observed coughing. The group had been bought from different sources two weeks previously, and had received an anthelmintic, flukicide and mineral bolus on arrival. At post mortem of the steer, there was a moderate amount of consolidation in all lung lobes, with a cranioventral distribution, and bullous and subpleural emphysema. The most significant lesion was a severe fibrinopurulent tracheitis (Figure 1). The farmer was advised to take immediate action and isolate any further clinical cases and vaccinate the rest of the group. IBR infection was confirmed by PCR screening of a tracheal swab. It was hoped that the prompt action taken limited the outbreak in this group of susceptible animals.


Figure 1


Figure 2

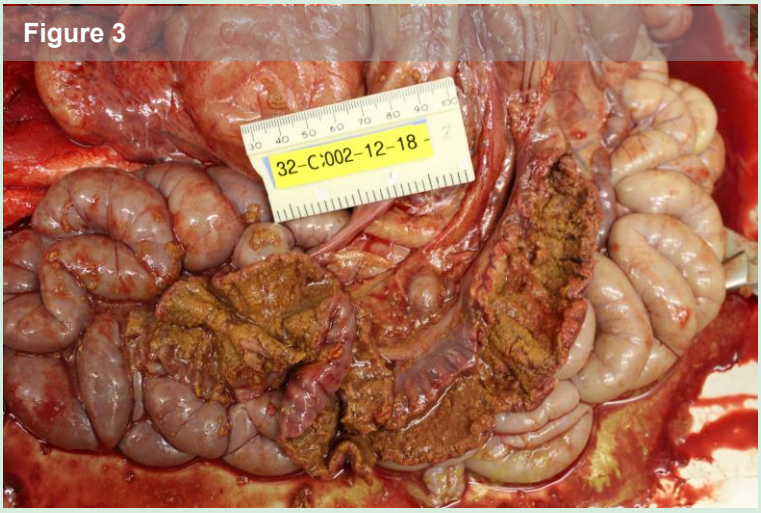
RSV infection was confirmed by multipex PCR in the lungs of a four-month-old calf that was found to have two large ephysematous bullae at post mortem examination. The two bullae occupied the caudal lung lobes (Figure 2). The calf had been treated for four days and had a slight cough, but was then found dead.

For those practices that do not have BVA membership a toll-free link to the APHA Surveillance Vet Record reports is now available by clicking on this link.
https://www.gov.uk/government/publications/apha-disease-surveillance-reports-2018/monthly-disease-surveillance-reports-2018

APHA have produced a focus article on causes and diagnosis of Ovine Abortion which can be viewed here
https://veterinaryrecord.bmj.com/content/vetrec/183/17/528.full.pdf

We will be having a talking sheep afternoon on Wednesday 1st May from 2.30pm. Tea and cake will be provided after the meeting.

Figure 3



Enteric conditions in young calves produced a variety of diagnoses in this period. Necrotic ileitis was diagnosed in a five-day-old calf that had not received sufficient colostrum. Severe necrosis of the ileal mucosa (Figure 3) was due to ***Fusiformis* infection** according to histological examination and gram staining. This organism is more commonly associated with calf diphtheria, but occasionally causes a necrotising enteritis. ***Salmonella* Typhimurium U302** was cultured from a two- week-old calf, one of two to die with acute dysentery. Cases of *Salmonella* Typhimurium, infection continue to occur on Anglesey, in both sheep and cattle.

Listerial infections featured in the last few weeks, suggesting that contaminated feed, or environment, could predispose to infection, as illustrated below.

Listerial abomasitis and typhlocolitis were diagnosed in two ewes submitted from a flock of 120 housed ewes. They had been housed for two weeks and fed silage. The first of the two ewes had an ulcerative abomasitis (Figure 4) whereas the second ewe had minimal abomasal lesions but a thickened mucosa in the caecum and colon, with linear haemorrhages. ***Listeria monocytogenes*** was cultured from enteric samples taken from both animals. Infection is likely to have been acquired by feeding poor quality silage with soil contamination, which can harbour this bacterium. One other case of listerial abomasitis was recorded in December.

Figure 4

Listerial encephalitis was diagnosed in an 11-month -old ewe lamb. It was one of six that had developed a head tilt and incoordination, before death. They were in a group of 90 ewe lambs on rented keep. Diagnosis was made by histology, where the morphological diagnosis was multifocal severe chronic rhombencephalomyelitis. No silage had been fed to this group, but there was heavy soil contamination of the fleece, suggesting that they had been kept in muddy conditions, that might have harboured the bacterium.

Listerial abortion was diagnosed in an eight-month-old bovine foetus. Two abortions had occurred in a suckler herd of 40 cows fed silage.

Torsion of the mesentery was the cause of death of an adult ram. It was one of a group of 30 rams kept outside. It was found to be lethargic, then became recumbent with rapid breathing, before death. It had a torsion at the root of the mesentery, and the distal duodenum, jejunum and ileum and large intestine were dark purple and dilated with gas. Such torsions can be caused by grazing legumes or other readily fermentable crops with a high rate of passage through the rumen and increased fermentation in the large intestine, resulting in increased size of this organ. This can lead to a sudden torsion of the intestinal mass causing rapid death. The disease usually occurs about three weeks after grazing lush pastures

Parasitic conditions have continued to affect adult ewes and growing sheep, despite warnings to treat appropriately before lambing and to maximise growth rates respectively. Below is an important example of how roundworms can cause disease in adult ewes.

Chronic parasitic abomasitis was diagnosed in a four-year-old ewe, one of six affected by weight loss in a group of 350 ewes, in a flock of 500. One of the six had died, and another one was euthanised in order to investigate the cause of weight loss. At post mortem, the ewe was found to be barren, and had a grossly thickened abomasal mucosa. Few worm eggs were found in gut content, probably because of recent anthelmintic treatment. The histological description of the abomasal mucosa was of multifocal, moderate, chronic, plasmalymphocytic and eosinophilic, metaplastic abomasitis with focal granulomatous change. The conclusion was that this would have led to achlorhydria and decreased pepsinogen activity and secretion, predisposing to maldigestion and ill thrift.

Pasteurella multocida caused a pneumonia in a 12-week-old weaner gilt that had consolidated lungs and a vegetative endocarditis on the left atrioventricular valve. It was the fourth to die in a group of 12. Clinical signs included inappetence followed by dyspnoea and cyanosis of the skin of the ears.

Fluke watch

Chronic fasciolosis was diagnosed at post mortem for the first time this winter. A four-year-old ewe was euthanised for post mortem examination, when it became moribund with excess salivation. It was one of six affected in a group of ewes carrying single lambs, at grass. They had been wormed in the autumn but had received no flukicide treatment. The liver was enlarged and firm with extensively fibrosed bile ducts containing adult fluke. Blood analysis revealed a raised BHB level indicating metabolic imbalance caused by the fluke infection. This post mortem report was tweeted and posted on Facebook where it reached over 9,000 people.

Compiled by: Roger Daniel, Daniel Luxton. Histological interpretation by Mark Wessels of Finn Pathologists.