



The weird and wonderful

So far this summer we've had our classic cases of PGE, clostridial disease, pneumonia and tick related disease. In this newsletter we want to share with you some of our more unusual recent cases – enjoy!

Intestinal adenocarcinoma was diagnosed in an adult ewe from a small flock of Welsh Mountains. 24 hours before death she exhibited a range of symptoms including dyspnoea, head pressing, lethargy and she had stopped cudding.

Six litres of peritoneal fluid (a modified transudate) was drained from the abdomen on post-mortem examination (PME) (see Fig. 1). The liver was swollen and orange in colour. The diaphragm was thickened (up to 1cm) and appeared to be comprised of a rigid fibrous tissue with limited normal muscle. The lungs were moderately consolidated and there was a significant pleural effusion. The myocardium of the left ventricle was also thickened.



Figure 1. Abdominal ascites

A metastatic diaphragmatic adenocarcinoma was diagnosed on histopathology, most likely a metastasis from the intestines.

Intestinal adenocarcinoma is one of the more common tumours of sheep. Often, the primary tumour forms an annulus around the intestines resulting in a distended portion of gut proximally; ascites is another common finding. Interestingly, this case had no gross changes to the gastrointestinal tract. These are usually sporadic cases, however ingestion of bracken or contact with phenolic compounds could increase risk of disease.

Atrial septal defect (ASD) was found on PME of a six-week-old suckler calf. This calf was the second to die in a 100 head suckler herd following treatment for a suspected pneumonia.

There was lots of gross pathology on PME: 'Nutmeg liver' with hepatomegaly and a thickened capsule, the cut surface showed reddened centrilobular zones of congestion with the surrounding tissue appearing paler. The intrahepatic network of lymphatics and blood vessels appeared distended throughout (see Fig. 2). The lungs were diffusely congested with mild consolidation of one cranial lobe. The heart was grossly enlarged, and the right atrium distended. There was a 2.5cm diameter ASD (see Fig. 3). Also, there was widespread petechial haemorrhages in the subcutaneous tissue and a generalised lymphadenopathy.

UPCOMING CPD – come and meet us!

2nd October 2024 – Sheep Iceberg Diseases with
Phillipa Page, Kate Hovers and Claire Jones @ Royal
Welsh showground, Builth Wells

13th November – Basic Sheep Module 2: Mid
Pregnancy/Post Scanning @ WVSC Aberystwyth

8th January 2025 – Basic Sheep Module 3: Lambing
Time @ WVSC Aberystwyth

Please visit our website for more information

There was a very heavy growth of non-haemolytic *Escherichia coli* on cultures taken from the lung.

Histopathology of the lung supported a diagnosis of bacterial bronchopneumonia. There was evidence of hypoxic damage to the liver tissue and the lymph nodes were unremarkable.



Figure 2. 'Nutmeg' liver

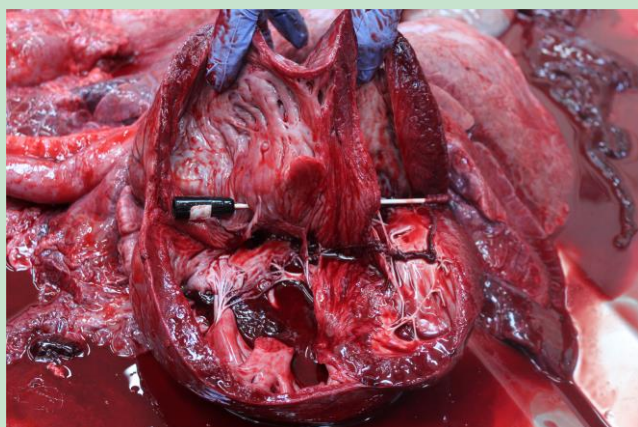


Figure 3. A swab demonstrating the ASD

The ASD is the most significant finding in this case and almost certainly the cause of death, the abnormal circulation in this animal would have had a detrimental effect on its immune system and predisposed to secondary infections, such as pneumonia. The increase in pressure in the right side of the heart and the portal vena cava would have then led to a degree of passive congestion in the liver, giving the classic "nutmeg" pattern.

We do pigs and poultry too, our expert colleagues in the APHA are always on hand to offer advice on cases and sampling.

We've recently seen a pig with a full thickness perforated gastric ulcer, which was also diagnosed with septicaemia associated with *Streptococcus suis*, and

Klebsiella pneumoniae subsp. *pneumoniae* was cultured from a lung lesion.

A chicken was diagnosed with ovarian carcinoma after a history of a short illness in a small flock. There were multiple small tumours throughout the abdomen (Fig. 4).



Figure 4. Ovary with nodular lesions

UPCOMING DISEASE ALERT!

Over the remainder of the summer look out for plant toxicity, urolithiasis in fed tups and tup lambs, tick-borne diseases, more cases of PGE and *Pasteurella pneumonia* in lambs associated with weaning.

Into the autumn we can expect more pneumonia in calves, acorn toxicity, fluke and digestive upsets relating to dietary changes.

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

<http://apha.defra.gov.uk/postcode/pme.asp>

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