Paws claws and udder things

Gribbles VETERINARY

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Spleendid samples

MICHAEL HARDCASTLE

Splenectomy for nodular splenic masses or diffuse splenomegaly is common, and we often receive entire spleens, or parts of splenic lesions for histopathology. Some spleens (and splenic masses) are very large, so fixing adequately in formalin prior to submitting to the laboratory for histopathology can be problematic.

The entire spleen is our preferred sample, however some spleens or splenic masses are very large and difficult to fix in adequate formalin before submitting them to the laboratory. For this reason veterinarians often need to take sub-samples from splenic lesions.

Unfortunately, the diagnostic area of a splenic mass can be missed with sub-optimal sampling. The following is a list of tips for optimising splenic lesion sampling.

> The bulk of the mass will probably be a non-diagnostic haematoma, therefore the centre of the mass is not usually worth sampling (Figure 1).

> Ideally, collect **4-6 samples** from the **mass/spleen interface** (Figures 2, 3), since this tends to be the region where any neoplastic cells are best preserved and most plentiful.

> It is worth also "**bread-loafing**" the mass to look for any discrete areas of differing texture, colour etc. that might indicate an additional lesion, and also sampling those (Figure 4). White or tan areas in particular should be collected.

> Any **additional masses** should also be sampled (Figures 2, 5). It is not uncommon for haemangiosarcoma to present as multiple splenic masses, or alternatively, for there to be several different lesions within the same spleen. All masses should be sampled, unless they are myriad – in which case a selection will need to be made.

> Diffusely enlarged spleens can usually be sampled adequately by collecting wedges from several random locations, however it also would be worth "bread-loafing" the spleen to check for any grossly different areas to sample as above.

> Collect wedges of 1-2 cm thickness in order to allow for rapid fixation while also minimising warping of the tissue during fixation.

> Finally, it is worth keeping the rest of the spleen in the freezer at your clinic while awaiting the histopathology results; it is likely to be of low diagnostic value due to freezing artefact, but it could be a "last resort" back-up if initial sub-samples are not diagnostic.

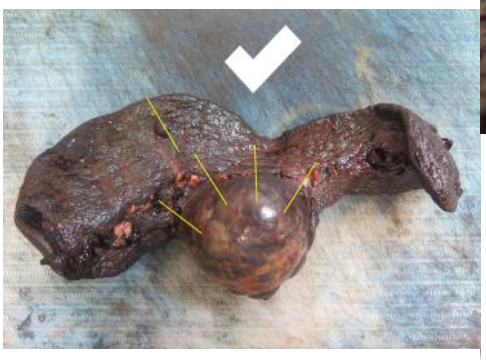

Figure 2 (above). Sampling areas that are usually diagnostic.

Figure 3 (below): A sample including the mass-spleen interface.

Figure 1. Sampling areas that are usually non-diagnostic.

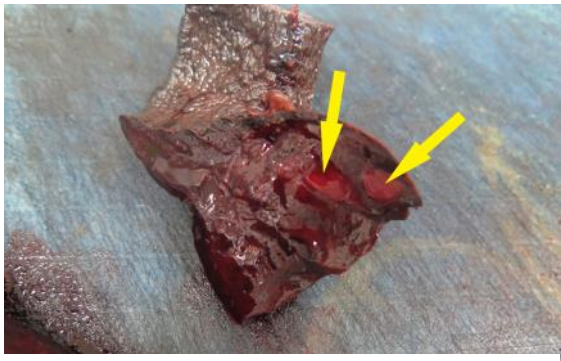

Figure 4: Extra areas of sample identified on "bread-loafing".

Figure 5: A small additional mass.

Equine ACTH samples are nice on ice

All samples for equine ACTH testing **must still be cold** when received in the laboratory. If they are ambient temperature on receipt, the samples are no longer suitable for testing.

Now that the temperatures are starting to warm up, it is especially important to ensure these samples are treated correctly prior to submission.

We recommend:

> The sample must be chilled within 3 hours of collection, preferably immediately after collection.

> If possible separate the plasma from the red cell pack. This must be done by centrifugation.

> Freeze the separated plasma and send to the lab with gel ice packs.

> If separation is not possible, wrap the chilled EDTA sample lightly in cotton wool and send with gel ice packs (but do not allow to freeze).

Read more information about this test and sample requirements on our website here.

Notification of exotic, new and emerging animal diseases

LYNSEY EARL & JOHN O'CONNELL (MPI)

The recent outbreak of foot-and-mouth disease (FMD) in Indonesia (after being free from the disease for 36 years) is a timely reminder of the need for ongoing vigilance for exotic, new, and emerging diseases.

Whilst it's important for veterinarians to know the signs of FMD, there are numerous other exotic diseases and it's difficult for veterinarians to be aware of them all. Furthermore, there is always the possibility of new pathogens emerging in any population.

It therefore may be more helpful to be aware of the general indicators of an exotic, new or emerging disease in a population. These include:

> An unusual number of sick or lame animals

> Animals with unusual signs or a combination of signs not usually seen

> Sick animals not responding to standard treatment

> An unexpected drop in production

> Unexpectedly poor reproductive performance

Some of these indicators could also signal the first appearance of an endemic disease in a herd or flock. They can therefore be useful to share with your farmer clients to ensure that they seek your timely input with these cases.

If you have a case where you suspect an exotic, new or emerging disease, then please call Biosecurity New Zealand's Exotic Pest and Disease hotline on 0800 80 99 66 to discuss the case further.

What happens when you call the hotline?

Your call will first be answered by a call centre, so that it can be directed to the Animal Health team (this number is also used for aquatic and plant notifications). At this stage you only need to provide a very brief description of what you're calling about, such as *"I'm a veterinarian wanting to notify about oral lesions in cattle"*. One of our veterinary incursion investigators will then phone you back to discuss your case with you.

There are three main outcomes following this discussion:

- Your notification is not investigated as the incursion investigator is satisfied that disease or pest is endemic. However, it will still be recorded in our database, therefore contributing to our national surveillance system;
- The incursion investigator will facilitate and fund a diagnostic work-up with you and your veterinary laboratory to exclude exotic differentials and determine an endemic diagnosis;
- Least often, where a highly contagious, high impact disease such as FMD is being considered, the Initial Investigating Veterinarian (IIV) Network may be activated.

The IIV Network is a formal network of 30 veterinarians throughout New Zealand who receive biennial training in exotic diseases - primarily vesicular disease. Once requested, IIVs are required to attend, investigate, and report on a suspected vesicular disease within 5 hours.

If an IIV attends the farm, Biosecurity New Zealand will usually ask you to assist and will pay for your time. The IIV will conduct a clinical and epidemiological assessment and will report their findings back to the incursion investigator. If an exotic disease cannot be ruled out, the incursion investigator will visit the property to investigate further and may collect samples for exotic disease testing.

If exotic diseases are ruled out, the incursion investigator will continue to fund and facilitate a diagnostic work up to help you reach an endemic diagnosis.

For more information on exotic animal disease surveillance, please visit: mpi.govt.nz/vetsurveillance.

Interested in reading about a case where the IIV network was activated? Click here.

To report suspected exotic land, freshwater and marine pests, or exotic diseases in plants or animals, call:

0800 80 99 66

Biosecurity New Zealand
Ministry for Primary Industries
Manatū Ahu Matua

Ovine virus causing chaos

JOHN GILL

Malignant catarrhal fever (MCF) is a sporadic disease of cattle and deer, caused by the sheep-associated virus (ovine herpesvirus 2). MCF is passed to cattle and deer by carrier hoggets and lambs, but affected cattle and deer do not transmit MCF to their cohorts. The incubation period can be several months.

The following cases show that this disease can produce a variety of clinical signs, although the "head and eye" presentation involving single adult cattle and acute deaths in two year-old stags are probably the most common.

In the past, this disease was diagnosed by examination of the fixed brain of suspect cases. This has largely been replaced by the use of PCR testing of EDTA blood from live, affected animals or the heart blood of animals found dead.

Case 1

A mature dairy cow was found recumbent and in convulsions. It died shortly afterward. Samples of eye fluid from the dead cow showed normal concentrations of magnesium and calcium.

A necropsy revealed only a large amount of blood in the lumen of the colon.

Histopathological examination of sections of the colon showed severe submucosal oedema, thrombosed arterioles often with large infiltrates of mononuclear cells and necrotic ganglia. The sections of the mucosa revealed necrosis of crypt lining cells and replacement of large areas of the mucosa by sheets of lymphoid cells. These findings were considered to be consistent with MCF of cattle.

Later examination of the fixed brain from this cow confirmed this diagnosis.

Case 2

There was an outbreak of deaths in a group of 275 yearling stud Angus bulls on a sheep and beef farm. These animals were in multiple mobs of 90 animals and most of the affected animal were from one mob.

Approximately eight of these bulls died over a two-week period. Some were found dead, but the majority showed a variety of clinical signs that included a severe oculo-nasal discharge and pyrexia, or recumbency and seizures before dying. All exhibited a peripheral corneal oedema.

EDTA blood samples from live affected bulls were PCR positive for ovine herpesvirus 2. The fixed brains from a couple of yearlings showed a relatively mild, non-suppurative meningoencephalitis, typical of MCF. As this disease has a long incubation period, it was thought the virus was derived from an adjacent paddock of hoggets that these yearlings spent some months close to over the winter.

Figure 1. A cattle-beast with MCF - demonstrating severely affected eyes with corneal opacity, and copious mucopurulent nasal discharge.

Photo credit: nadis.org.uk

Case 3

On a deer farm, ten out of a mob of 100 adult stags were found dead over a 10-day period. A few were noticed to have a bloody diarrhoea shortly before they were found dead. A necropsy of one recently dead stag demonstrated a severe congestion and haemorrhage of the intestinal tract from mid-intestine to the rectum.

Culture of the intestinal tract failed to find a bacterial pathogen, but the ovine herpesvirus -2 was found in EDTA blood taken from this animal, confirming a diagnosis of MCF.

Large outbreaks of MCF were seen in the early days of deer farming in New Zealand, but are rarely seen on today's deer farms.

BVD bulk milk Lab-Portal - such a breeze to use!

Does your clinic help organise bulk milk BVD testing for multiple clients? Do you struggle keeping track of which farm needs testing when? Are you looking for the perfect testing options that can be adapted depending on your client?

Our BVD bulk milk Lab-Portal helps reduce the administration work load when carrying out bulk milk testing for your farmers. You can order bulk milk BVD, ostertagia and liver fluke testing, as well as our economical Herd Guardian packages through the Lab-Portal. The testing is all performed on dairy company sourced samples, so no on-farm sampling is required.

This system also provides visibility of all your clinic's orders booked for the upcoming season; which farmers are about to be tested in the coming weeks; and whether the sample has been received at the laboratory.

We have received such great feedback about the Lab-Portal, we don't want you missing out on the action. To find out more, find access instructions here or contact your local Gribbles Veterinary Territory Manager.

"Your BVD portal is just wonderful to use and so easy to navigate. With over 60 farms to co-ordinate, it's great the Gribbles BVD portal is so user friendly and not at all complicated to use."

Celeste Broad, Franklin Vets

Up your staining game ...

Do you stain blood or cytology smears in-clinic? Struggle to find an appropriate container to fit the slides and hold the stain?

We are very excited to now be stocking Coplin jars for slide staining. These classic glass jars are designed to hold microscope slides in their vertical grooves for staining, plus they have a glass lid to prevent evaporation.

The convenient size means stain isn't wasted, they're good and solid, easy to clean, make staining so simple, and you're able to see when stains need changing.

Available online as single jars or in a convenient set of three.

In brief

> **35mL sample pottles** - we recently had to source a new supplier for these consumable items and the new stock is now available online. Either $0.44 each or in a pack of 20 for $7.92 (ex. GST).
> **Just a reminder** that all of our stated turn-around times are in working days, and only core testing (biochemistry, haematology, microbiology) is carried out on weekends.
> **NAHL (MPI) are increasing their pricing** for the first time in ten years and some test prices will change significantly. A separate communication will be sent out with updated pricing once it has been confirmed.

Lab tip - specimen bags

Specimen bags are cleverly designed, cheap, practical and easy to use. However we still receive samples us without them, or incorrectly loaded.

> The main body of the bag has a plastic zipper across the top, enabling the hazardous samples to be sealed in.
> There is a separate pocket on the outside of the bag for paperwork.

Once samples are inside the bag, make sure the plastic zipper is **fully closed.** Any leakages will remain inside the bag and will not pose a health risk to anyone handling the sample during transport or when received in the laboratory.

Place your completed submission form in the **pocket on the outside** of the bag. This will ensure it stays clean, dry if a leakage occurs.

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Gribbles VETERINARY

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Contacting Gribbles Veterinary couldn't be easier.

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