

## DIAGNOSTIC EXERCISE No. 36

**Contributor:** Patrick Staples

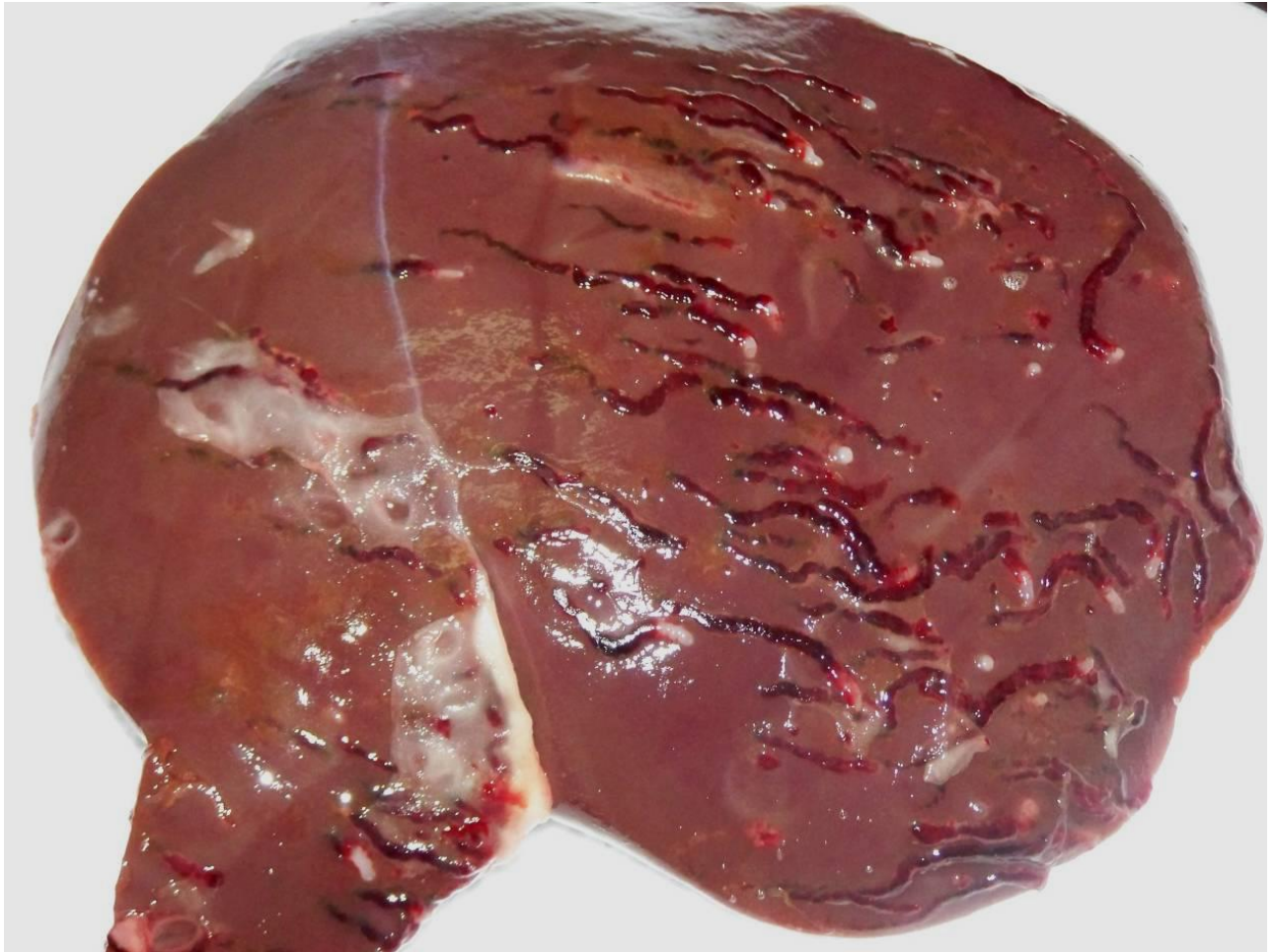
Veterinary Pathologist; NSW State Veterinary Diagnostic Laboratory EMAI

patrick.staples@industry.nsw.gov.au

Ph: 1800 675623 or 02 4640 6313

### **History:**

Specimen from an 8 month-old lamb brought to the Lavington (NSW) district veterinarian by a farmer, who reported that a number in the flock were losing weight. This was the only really ill animal; it was moribund when killed for necropsy.



### **1. Description:**

The diaphragmatic surface of this portion of liver bears numerous randomly-distributed raised red serpentine tracks up to 2-3mm wide and some as long as about 6-7cm (no scale was provided, unfortunately). Most of these tracks are oriented in roughly the same direction, and many are narrow at one end and gradually widen toward the other. At the wide end of a few of the tracks there are small pale smooth nodules of about the same diameter as the adjoining track. A couple of these lie apparently free on the capsular surface. Adjacent to what is presumably the remains of the falciform ligament there are a couple of large irregular pale plaques of what appears to be fibrin.

### **2. Morphological diagnosis:**

Subacute linear haemorrhagic hepatitis

### 3. Most likely cause/s:

Migratory stage of larval *Taenia hydatigena* (the larval stage was formerly known as *Cysticercus tenuicollis*). *Fasciola hepatica* larvae can produce similar damage and should be included in the differential.

### 4. Steps you would follow to establish aetiological diagnosis:

In fresh specimens, using needles under a dissecting microscope, the small cysticerci can be teased from the ends of their tracks and squashed between glass slides and identified by the configuration of the hooks on their little scolices. In histo sections of fixed specimens these cestode larvae can be differentiated from fluke larvae by the absence of digestive organs (see fig. 2)

### Comment:

Further history included the information that this small flock of lambs was running in a house paddock in which there was plenty of dog activity.

Apparently what happens is that a lamb with nothing better to do nibbles at a dog turd and picks up a *T. hydatigena* segment loaded with eggs, enough to trash the liver when they all hatch at once. Of course, it's a good scenario for an outbreak of black disease, too.



If you want to discuss this case, please contact Patrick Staples (contact details above), or Roger Kelly at [roger-kelly@aapt.net.au](mailto:roger-kelly@aapt.net.au) .