



Latin Comparative Pathology Group

The Latin Subdivision of the CL Davis Foundation

Diagnostic Exercise

Case #: 49 Month: October Year: 2014

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Clinical History: Over last few years, a ranch has had sporadic cases of adults and young cattle going blind with high fever, convulsions, and ataxia. Some of the affected cattle died. The ranch has both sheep and cattle. No specific feed or field area seemed to be associated with cattle being affected.

Laboratory Findings: No previous laboratory results were submitted.

Necropsy Findings: Fresh and formalin-fixed tissues from a 2-year-old, male Red Angus bovine were submitted for postmortem examination and diagnostic work-up. Fresh tissues included brain, heart, trachea, esophagus, lung, liver, gall bladder, spleen, kidney (pair), urinary bladder, mesenteric lymph node, abomasum, small intestine, spiral colon, cecum, rumen content and an eyeball. Formalin fixed tissues included a fragment of kidney. Grossly, the liver had an enhanced reticular pattern (not shown) and an image of one kidney is shown in Fig.1. A urine sample was also submitted, Fig.2.

Gross and microscopic images (please see below):

Follow-up questions: 1) Description of the gross appearance of the kidney and the urine sample. 2) Description of microscopic lesions in brain, lung and kidney (similar lesions in these three tissues can be grouped first and specific lesions to each tissue described afterwards). 3) Morphologic diagnosis, 4) Name the disease and its cause, 5) Differential diagnoses.



Fig. 1



Fig. 2

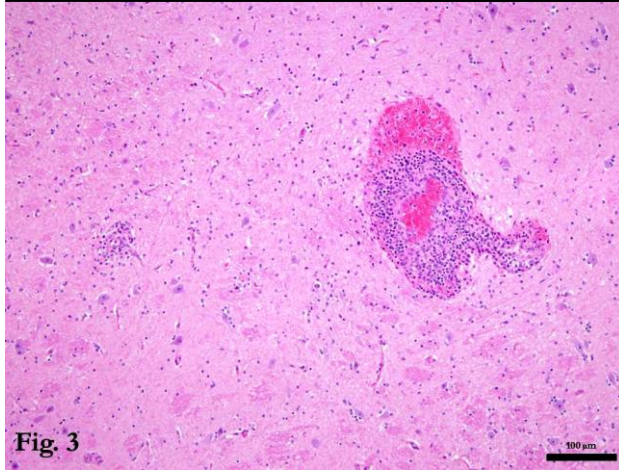


Fig. 3

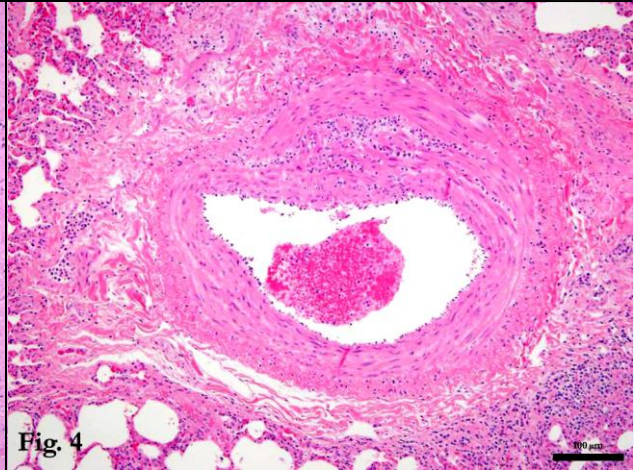


Fig. 4

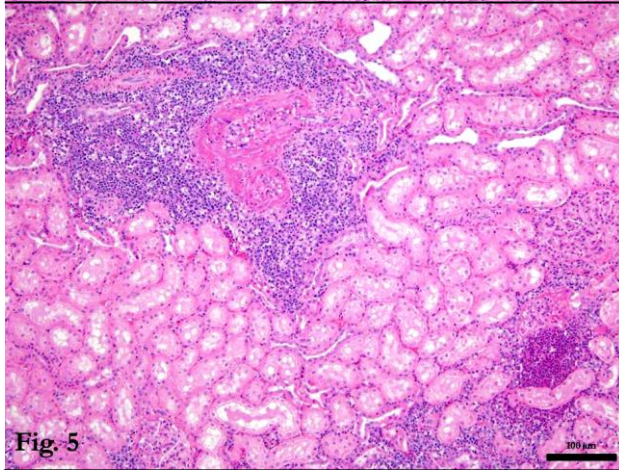


Fig. 5

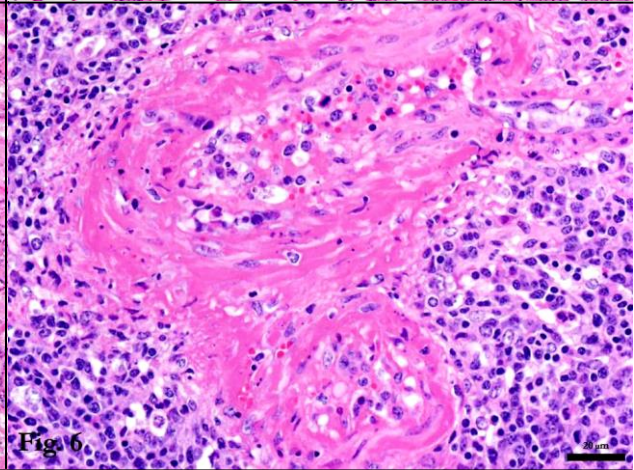


Fig. 6

Fig.1 Gross image of one kidney fragment. **Fig.2** Urine sample. **Fig.3** Section of brain, 10x (H/E). **Fig.4** Section of lung, 10x (H/E). **Fig.5** Section of kidney, 10x (H/E). **Fig.6** Same section of kidney with higher magnification, 40x (H/E).

Please send your comments/questions to the whole LCPG list by hitting "reply to all".

A final document containing this material with answers and a brief discussion will be posted on the C. L. Davis website by the end of the current month (http://www.cldavis.org/lcpg_english.html).

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