

MYOCARDIAL CYSTICERCOSIS (PRESUMPTIVE *CYSTICERCUS TARANDI*/TAENIA OVIS KRABBEI) IN A MOOSE (*ALCES ALCES*)¹

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History: On January 24, 2013, this free-ranging moose cow was captured, equipped with a collar by field biologists of the Minnesota Department of Natural Resources (MDNR) and released. The moose was part of a MDNR study to examine the sudden decline of Minnesota's moose population. The collar had GPS capabilities and a device that triggered a mortality signal when the animal did not move for 6 hours. The animal was aged at 11 years at capture based on analysis of the annual cementum layer of an extracted incisor tooth. A mortality signal was emitted at 12.25AM on November 25, 2015. The carcass of the moose was extracted from the field and a necropsy was performed at the Minnesota Veterinary Diagnostic Laboratory (MVDL) within 36 hours of the first notification.

Gross Findings: The animal weighed 369kg. It only had very scant internal (e.g. perirenal) fat stores and no measurable subcutaneous adipose tissue stores. The abdominal cavity contained 5 liters of clear watery colorless fluid with a small amount of delicate beige stringy elastic material (interpreted as fibrin strands). The heart weighed 2.7kg. The myocardium of the left ventricular free wall, septum and right ventricular free wall had numerous (approximately 50 in total), scattered 1 to 2cm long and approximately 1.5cm in diameter cysts (Fig. 1). These cysts contained watery clear fluid and a white, spherical, approximately 0.5cm in diameter structure. In addition, rare collapsed cysts, approximately 1cm in diameter, with greenish pasty material were present within the myocardium. Similar cysts were present in high number within the skeletal muscles particularly in the movers of the head, the masticatory muscles and the esophagus. Approximately 10% of the liver parenchyma were replaced by up to 5cm in diameter cysts containing brownish pasty material that were bordered by fibrous capsule. This lesion is consistent with fluke (*Fascioides magna*)-induced hepatitis. Few flukes (presumptive *Paramphistomum cervi*) were attached to the ruminal mucosa. The animal was pregnant with an approximately 8cm long (crown to rump length) fetus.

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