Suspected Lymphosarcoma in a Feedlot Heifer

A feedlot heifer presented in early May with exophthalmia of the right eye noticed by the pen riders suspect for a retrobulbar abscess. Upon examination the eye did not retract into the globe with retropulsion and we could not sample any pus on a fine needle aspirate. At this point we noticed that the heifer had not gained weight since its reimplant so we performed a rectal palpation to see if we could find any further abnormalities. On rectal palpation there were multiple firm, round masses palpable immediately cranial to the pelvis. Euthanasia was performed based on a diagnosis of a malignant neoplasm and a post mortem done to confirm. At this point we were highly suspicious of Lymphosarcoma given the young age and presence of Bovine leukemia virus in Alberta. There were multiple white to tan masses ranging from approximately 15cm to 60cm in diameter throughout the abdomen with the largest mass being impregnated with the small intestine. Masses were also noted in the thoracic cavity along the spinal column and adjacent to the trachea. Returning to the presenting complaint, the skin immediately caudal to the right eye was dissected to confirm that the exophthalmia was due to neoplastic metastasis. A large retrobulbar mass was identified confirming this diagnosis. Although not an unheard of finding in Alberta, this was my first case this severe and was incredibly exciting to be a part of.

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Paratuberculosis in a Limousin Bull

**Presenting complaint:** 4-year-old black Limousin bull with weight loss and severe, chronic diarrhea of two months’ duration.

On examination the bull was bright and alert, but thin with watery diarrhea. His vital parameters were normal. Submandibular edema was present. On rectal examination, several small, abnormal masses were palpated in the right abdominal cavity, possibly mesenteric lymph nodes with a normal left kidney. The primary differential diagnosis was paratuberculosis, but also considered were, ostertagiosis, leucosis, lipomatosis, amyloidosis and CCF. Blood was drawn and submitted for CBC and serum chemistry. Feces were collected for PCR for *Mycobacterium avium paratuberculosis*.

The CBC revealed a PCV of 27 L/L with no evidence of inflammation. Serum chemistry revealed a total protein of 46 g/L with a hypoalbuminemia (16 g/L) with evidence of a mild hyponatremia, hypocalcemia, hyperphosphatemia and slightly raised creatinine. PCR of the feces was positive for *M. paratuberculosis*. This diagnosis was discussed with the owner who elected euthanasia and a necropsy.

At necropsy, ascites was present. The small intestine was firm and hose-like with approximately 1cm thickening of the small intestinal wall, affecting the entire ileum, jejunum and posterior duodenum. The mesenteric lymph nodes were enlarged. The abomasal folds were severely edematous. Aortic calcification was present. Histopathology of the small and large intestine confirmed a diagnosis of paratuberculosis with infiltration of macrophages, lymphocytes and multi-nucleated giant cells.

**Discussion:** Clinical examination and post-mortem lesions were consistent with Johne’s disease. Recommendations were made to avoid transmission to herd members.

Katrina Barth
WCVM 2017
A herd of 40 cow-calf pairs were gathered for process a couple evenings ago. A few calves fell behind the rest of herd. Three calves appeared to be blind, dehydrated, depressed and ataxic. They were manually encouraged to move to the corrals by attending farm hands. Two calves seemed more severely affected and kept trying to push through wire fence, lacerating their faces & front legs.” That was an interesting prelude to the case myself and fellow classmates worked through earlier this fall. Tasked with collecting history, gathering data, and analyzing results we accumulated differentials and began to whittle them down. The ranch property was examined and blood was taken from affected animals and random others. Once the results were discussed we came to a definitive diagnosis after much deliberation.

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UCVM 2019