

Sporadic juvenile thymic lymphoma in a 3-month old Angus bull calf

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Introduction

A 3-month old Angus bull calf presented for enlargement of his ventral neck and brisket region. Physical examination revealed the calf was dyspneic and exhibiting sign of secondary ruminal tympany. Palpation of the neck and brisket revealed a firm, predominantly left sided, ventral mass in the caudal cervical region at the level of the thoracic inlet.

Materials and Methods

An orogastric tube was passed in an attempt to relieve the bloat, but passage past the mass was not possible. Trocharization of the left dorsal paralumbar fossa was performed in an alternative attempt to treat the bloat. Shortly after the bloat was relieved, the calf became agonal and died.

Results

Upon necropsy a 20 x 10 x 10 cm, lobulated, tan, encapsulated, and well-vascularized mass was discovered at the level of the thymus. Located at the center of the mass was a 5 cm area of caseous necrosis. The lesion appeared to be causing secondary esophageal obstruction preventing eructation. A well demarcated bloat line was observed in the

distal esophagus, separating the 5.5 cm portion of blanched tissue from the adjacent, blood congested counterpart

Impressions smears from the thymus contained numerous lymphocytes with a predominance of large cells. These cells had scant to small amounts of dark blue cytoplasm, round to oval or cleaved nuclei, smooth to stippled chromatin, and variably distinct round to ovoid nucleoli. Mitotic figures were readily observed. Low numbers of small mature lymphocytes were found throughout the smears. A proteinaceous background contained many erythrocytes, frequently noting bare nuclei and scattered cell debris.

Significance

This case of thymic lymphosarcoma was supported by the animal's signalment, clinical findings, and cytology. This case was thymic lymphosarcoma rather than calf or juvenile lymphosarcoma due to its clinical presentation. According to Smith, no etiologic agent has been associated with the sporadic forms. Due to this, the concern for exposure of this herd to any bovine leukemia virus (BLV) infected animals was diminished.