

Unique CT findings of canine non-splenic hemangiosarcoma

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PURPOSE

To characterize computed tomographic (CT) findings of canine non-splenic hemangiosarcoma.

METHODS and MATERIALS

CT images of 8 dogs, histologically confirmed as hemangiosarcoma, were retrospectively reviewed. The tumors are originated from the muscle (4), the liver (2), the subcutaneous (1) and the retroperitoneum (1). All scans were taken under general anesthesia with a helical sequence using 120kvp, 100mAs at 1mm slice collimation. Scans were repeated approximately in 1 minute for all dogs and in 3 minutes for 5 dogs after administration of iopamidol 600mgI/kg via peripheral venous catheter. The number of tumors, homogeneity, attenuation and contrast-enhancement patterns were evaluated.

RESULTS

Four dogs had solitary and 4 dogs had multiple lesions. On pre-contrast CT images, the appearances of the tumors were heterogeneous in 4 dogs and homogenous in 4 dogs. On post-contrast CT images, all tumors were heterogeneous. Six masses appeared hypoattenuating and 2 appeared isoattenuating on pre-contrast CT images relative to the adjacent normal tissues. Multiphasic contrast-enhanced CT showed 3 different contrast-enhanced patterns: poor, rim and mottled enhancement patterns. Three of 4 cases in which 3 minutes post-contrast study were performed had progressive centripetal nodular enhancement patterns.

CONCLUSION

Unique contrast-enhanced patterns were seen in canine non-splenic hemangiosarcoma on post-contrast CT images. These features may provide useful information to suspect hemangiosarcoma prior to biopsy.