

HEART TUMORS IN DOMESTIC ANIMALS

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Neoplasms of the heart are rare diseases in domestic animals. Among all domestic animals heart neoplasm are most common in dogs. Most of the canine heart tumors are primary what is contrary to other domestic animals, in which most of cardiac tumors are metastatic. Primary tumors of the heart represent 0,69% of the canine tumors. Among all primary neoplasms canine hemangiosarcoma of the right atrium is the most common. Other primary cardiac tumors in domestic animals include rhabdomyoma, rhabdomyosarcoma, myxoma, myxosarcoma, chondrosarcoma, osteosarcoma, granular cell tumor, fibroma, fibrosarcoma, lipoma, pericardial mesothelioma and undifferentiated sarcoma. Aortic and carotid body tumors are usually classified under primary heart neoplasm but are actually tumors which arise in adventitia or periarterial adipose tissue of the aorta, carotid artery or pulmonary artery, and can extend to heart base.

Hemangiosarcoma is the most important and most frequent cardiac neoplasm of dogs. This tumor develops primary from the blood vessels that line the heart or can metastasize from sites such as spleen, skin or liver. It is most commonly reported in mid to large breeds, such as boxers, German shepherds, golden retrievers, and in older dogs (six years and older).

Aortic and carotid body adenoma and adenocarcinoma belong into the group of chemoreceptor tumors („chemodectomas“) and are morphologically similar. In animals, incidence of aortic body neoplasm is higher than that of the carotid body. Both tumors mostly develop in dogs (brachycephalic breed: boxers, Boston terriers), and are rare in cats and cattle.

Heart-base tumors derived from ectopic thyroid include adenomas and carcinomas derived from ectopic thyroid tissue and represent 5-10% of „heart-base“ tumors of dogs.

Rhabdomyomas are most frequently reported in swine and are just sporadically reported in dog, cattle and sheep. Cardiac rhabdomyosarcomas are very rare.

Myxomas although common in humans these tumors are rare in domestic animals and are rarely reported in dogs, cats and cattle.

Cardiac chondrosarcoma arise from cardiac skeleton and are extremely rare in animals.

Granular cell tumor (granular cell myoblastoma) is described in the right atrium of a dog.

Neurofibromas (Schwannomas) can be seen in cattle.

Metastatic tumors which are most prevalent in domestic animals are lymphomas (dog, cattle, cat). Beside lymphomas, metastases of mammary and pulmonary carcinoma and melanoma are relatively frequent in dogs.