Canine Thyroid Tumors

Thyroid tumors are uncommon in dogs. They tend to occur in middle-aged dogs, and some breeds may be more predisposed: Boxers, Golden Retrievers and Beagles. The cause of this tumor is unknown.

A mass in the ventral neck may be discovered by the owner or the veterinarian on a routine examination. Some dogs may gag, cough, retch, or swallow funny. Rarely, they may have signs of hyperthyroidism which might include increased appetite, weight loss, behavioral changes (agitation, aggression), and restlessness.

Staging diagnostics include routine blood work, blood work to evaluate thyroid levels, 3-view chest radiographs, cytology of the draining lymph nodes, and tumor cytology and/or biopsy. They may include CT scan of the primary lesion +/- the chest as well. Biopsy is usually surgical and requires anesthesia/sedation. Thyroid tumors tend to be highly vascular, and the thyroid sits next to many vital structures.

Therapy considerations are based on several factors: tumor size, histological type, “functional” nature of the tumor, extent of disease, and spread of disease to distant sites. Early detection is best, and complete surgical removal is the best treatment if possible. Dogs with small, freely moveable thyroid tumors completely removed by surgery have survival times of 2 to 3 years on average.

If surgical removal is not possible, or if it is incomplete, radiation treatment is recommended. Radiation is performed in two ways depending on the situation (palliative or definitive), and the treatment plan may include one treatment per week for 4 to 6 weeks or up to 5 treatments per week for about 4 weeks). Survival times with radiation are still reported to be reasonably good, with survival times of over 3 years reported for many cases.

As for medical treatment (chemotherapy), it can be used to palliate (improve quality of life by relieving symptoms associated with a tumor) or reduce tumor size so that other treatment options can be tried. It can also be used in addition to other treatments if there is a concern for aggressive behavior and potential spread. If surgery is incomplete and radiation cannot be tried, it can be used to hopefully slow regrowth of residual tumor. Different drugs are used, including NSAIDs such as piroxicam.
Overall, treatment decision making for this kind of tumor can be complex. A veterinary oncologist works closely with the surgeon and radiologist to optimize a patient’s treatment plan to do what is best for each individual patient.

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