

capsules

THE CURRENT LITERATURE IN BRIEF

Sick Patient? Take Care Interpreting Thyroid Values

It is well known that thyroid-related tests can be influenced by many factors not associated with thyroid function, among them medications and severe illness. Although new methods for assessing thyroid status in dogs have become available, it has been stated that more than 75% of both thyroid lobes must be destroyed before clinical signs of canine hypothyroidism become evident. This cross-sectional study purports to be the first morphologic study comparing thyroid follicles in healthy and sick dogs (61 healthy and 66 severely sick dogs with nonthyroid-related illness). Serum samples were obtained before euthanasia, and morphologic analyses were performed on both lobes for all dogs. In the sick group, serum total thyroxine and free thyroxine concentrations were less than reference range values in 39 (59%) and 21 (32%) dogs, respectively, and only 5 (8%) had high thyroid-stimulating hormone concentrations. Mean serum total thyroxine and free thyroxine concentrations were significantly lower than in the healthy group. There were no significant differences between groups in volume percentages of follicular epithelium, suggesting that both groups had similar potential for synthesizing and secreting thyroid hormones. Because total thyroxine and free thyroxine concentrations are frequently less than reference ranges in sick animals, thyroid status should not be evaluated during severe illness.

COMMENTARY: Hypothyroidism in dogs continues to be of much interest to practitioners. Only recently have we begun to suspect that nonthyroid illness can affect testing values as it does in humans. This article proves it.—*Katherine S. Gloyd, DVM*

Comparison of colloid, thyroid follicular epithelium, and thyroid hormone concentrations in healthy and severely sick dogs. Torres SM, Feeney DA, Lekcharoensuk C, et al. JAVMA 222:1079-1085, 2003.