Testing for Canine Hyperadrenocorticism

Diagnosis of hyperadrenocorticism (HAC) in dogs is based on clinical findings, adrenal function tests, and treatment response. However, the most common tests (ie, ACTH stimulation, low-dose dexamethasone suppression tests [LDDST]) are not always positive in dogs with HAC. Adrenal function testing may have cortisol concentrations consistent with HAC in dogs with nonadrenal disease and signs compatible with ACTH, resulting in misdiagnosis. Dogs with pituitary-dependent hyperadrenocorticism (PDH) and adrenal-dependent hyperadrenocorticism (ADH) often have increased plasma concentrations of noncortisol adrenal steroids, sometimes without increased plasma cortisol concentrations. Increases in noncortisol adrenal steroids may thus account for cases of HAC with negative adrenal function tests based on measurement of cortisol concentration.

A study was conducted to determine the role of plasma cortisol, androstenedione, estradiol, progesterone, testosterone, and 17-hydroxyprogesterone concentrations during ACTH stimulation testing of dogs with HAC signs. Significant differences were found for post-ACTH cortisol, post-ACTH progesterone, and post-ACTH 17-hydroxyprogesterone between dogs with or without HAC. Results supported the measurement of progesterone and 17-hydroxyprogesterone for HAC diagnosis in dogs with normal cortisol concentrations after ACTH administration but for which HAC is still suspected.

Commentary
Measurement of post-ACTH noncortisol adrenal steroids may not provide a diagnostic advantage over post-ACTH cortisol for HAC diagnosis. This test, while sensitive, lacks specificity and should be used to rule out rather than diagnose HAC in dogs. However, because a majority of patients in this study were diagnosed with PDH, post-ACTH noncortisol adrenal steroids for diagnosis of ADH have not been thoroughly evaluated. In addition, studies evaluating adrenal steroidogenic enzyme activities in patients with adrenal and nonadrenal illness might provide insight into the utility of this test for diagnosis of canine HAC.—Jennifer Ginn DVM, MS, DACVIM

Source

Taking Care of That Old Bird

Among pet birds, psittacines are unique because of their long life span. This article detailed the most common diseases of geriatric psittacines, including cardiac disease, chronic liver disease, chronic kidney disease, neoplasia, and chronic pain. Many signs of these diseases are nonspecific (eg, lethargy, anorexia). Many causes are unknown, but management practices, diet, toxin exposure, and infectious diseases may be triggers. Suspicion for cardiac disease should be raised if nonspecific signs include exercise intolerance, cyanosis, collapse, and peripheral edema. Early clues of liver disease can be difficult to detect but can affect many organ systems; patients presented with multiorgan involvement would benefit from blood evaluations, imaging, and possibly histopathologic examination of liver biopsy specimens. Clues of kidney disease include regurgitation, polyuria, polydipsia, lameness, self-mutilation, and joint swelling. Neoplasms are common in geriatric birds, and signs depend on the organ involved. Common causes of chronic pain include all of these diseases, as well as gout and osteoarthritis. Behaviors suggesting chronic pain may include increased or decreased grooming or vocalizing, decreased activity, anorexia, or changes in normal behaviors (eg, flying, climbing, owner interactions).

Commentary
As they age, many psittacines develop chronic diseases that may cause pain, malnutrition, and decreased quality of life. Because these birds are intelligent, social, and long-lived, the importance of ensuring comfort in old age cannot be overstated.

This review outlined major disease categories seen in geriatric psittacines and summarized basic approaches to management. It can remind clinicians of the facets to consider when caring for an aged bird. Keeping these disease categories in mind, it has been my experience that thorough annual examinations, including full blood work, on geriatric psittacines may help identify preclinical disease and aid in successful management accordingly.—Sarah Churgin, DVM

Source