Performing Postmortem Avian Examinations

In many cases, postmortem (PM) examinations can help establish an accurate diagnosis about the cause of death or establish the presence or absence of infection. A fresh specimen and a comprehensive history are needed for best results. Because a number of zoonotic agents could infect birds, practitioners should be aware of potential risks and adopt appropriate safety measures. Minimum PM examination requirements include well-ventilated areas and carcasses dampened with a general disinfectant such as a quaternary ammonium compound or povidone-iodine. When more than 1 bird has died, it is best to examine all or at least a representative proportion of them. This article provides step-by-step instructions for examining each body system and lists some common causes of PM lesions found in major organ systems. Records of observations should be carefully kept. The carcass should be placed in a bag with waste material and disposed of appropriately. Samples for cytology, culture, and histopathology should be taken; which tests are conducted depends on the individual case and disease/condition suspected.

Commentary: Necropsy of an avian patient can provide invaluable diagnostic information. This review gives an illustrated primer on technical considerations for avian necropsy as well as a comprehensive overview of primary zoonotic diseases. The tables are particularly useful in summarizing major zoonotic agents and their associated clinical signs in birds. Because this paper is from a British journal, practitioners in the United States need to refer to state laws and regulations to confirm which diseases are reportable and to note additional notifiable diseases.—Dominique Keller, PhD, DVM

Diagnosing & Treating Canine Sterile Panniculitis

Sterile panniculitis is inflammation of subcutaneous fat in the absence of microbial infection. The pathogenesis is not thoroughly understood, and the disorder is commonly misdiagnosed as deep pyoderma, cutaneous cyst, or cutaneous neoplasia. This study evaluated 10 dogs with sterile panniculitis, comparing underlying disease, diagnostic findings, and treatment outcomes. There was no significant breed predilection. Four dogs had atopic dermatitis, 2 had acute pancreatitis, 1 had primary hypoadrenocorticism, and 3 had no history of other disease. There was no recent history of vaccinations or injections at the site of the lesions. Seven dogs had well-circumscribed firm nodules containing pleomorphic spindle cells and rare inflammatory cells. Three dogs had soft fluctuant nodules containing adipose cells and numerous inflammatory cells. Treatments included surgical excision (n = 1), systemic antibiotics (n = 1), intralesional injections of dexamethasone (n = 1), topical dexamethasone ointment (n = 4), oral prednisolone plus cyclosporine (n = 2), and oral prednisolone alone (n = 1). Initial response was good in all cases, with regression of lesions within 1 week. Two dogs relapsed within 2 months but responded to the same treatments within 1 week.

Commentary: Adult-onset panniculitis is uncommon, especially diffuse nodular presentations. The lesions are dramatic, the dog is in pain, and signs of systemic illness are present. However, diagnoses in cases where lesions are limited to one or just a few nodules are challenging. Diagnostic differentials include foreign body reactions, inclusion cysts, tumor, warble, or focal trauma. Fine-needle aspiration (FNA) is typically the diagnostic test of choice with solitary or few nodules, but FNA results were misleading in 8 of these 10 cases. In my experience, samples of deep dermis and panniculus require a deep wedge or excisional biopsy; routine punch biopsy is too superficial. Of note, in 2 dog, focal nodular lesions developed concurrently with pancreatitis. This clinical factoid should be recorded, as pancreatitis is more common than panniculitis—perhaps these lesions are more common than this article suggests. Topical glucocorticoids for treating focal or multifocal lesions are an option if a potent steroid is used. Another option would be a combination of DMSO and glucocorticoids.—Karen Moriello, DVM, Diplomate ACVIM