Dig Deep for Demodicosis

Canine demodicosis is a common skin disease; clinically, dogs present with either localized or generalized lesions. Although *Demodex canis* is considered a “normal inhabitant” of the skin, it is uncommon to find even 1 mite in normal skin. This study compared the sensitivity of skin scrapings, hair pluckings, and exudate microscopy. There were 67 dogs in the study: 30 had localized demodicosis and 37 had generalized demodicosis. Secondary bacterial pyoderma was present in 27 dogs; 13 had deep pyoderma. The sensitivity for each of the tests was 100% for deep skin scrapings, 85% for hair plucking, and 100% for exudate microscopy. Hair plucking was more likely to be positive in dogs with generalized demodicosis than in dogs with localized demodicosis.

**COMMENTARY:** Deep skin scrapings are clearly the best diagnostic test for ruling canine demodicosis in or out. Mites are part of the normal flora of dog skin but are present in such small numbers that it is very rare to find a mite on normal skin; mites found on skin scrapings from abnormal skin are an abnormal finding. Hair plucking can be useful in areas where skin scrapings cannot easily be done with a scalpel blade. Alternatively, a small metal spatula can be used. The high sensitivity of exudate sampling was not surprising, as these patients had deep pyoderma, and mites tend to be more prevalent in cases of generalized demodicosis associated with deep pyoderma. The major problem with skin scrapings is poor technique. The most common mistakes are not squeezing the skin while scraping, not scraping deep enough to get visual capillary bleeding, and not scraping a large enough area.—Karen A. Moriello, DVM, Diplomate ACVD


Mast Cell Tumor Update

Mast cell tumors (MCTs) are the most common tumor in dogs and the second most common tumor in cats. They are usually seen in older dogs and cats, but have been reported in very young animals as well. Several breeds are at increased risk for MCTs, including boxers, Boston terriers, Labrador retrievers, terriers, beagles, and Siamese cats. These tumors are often diagnosed with fine-needle aspiration and cytology (FNAC). Staging is somewhat controversial, but the author recommends a full physical examination, blood analysis and urinalysis, FNAC of any local lymph nodes, and abdominal ultrasonography. Additional diagnostics, such as thoracic radiographs, bone marrow aspiration, and cytologic evaluation, can also be done to help identify the presence of metastatic disease. If there is no evidence of metastasis, surgical excision is the preferred therapy. The author recommends 3-cm lateral margins and 1 fascial plane—deep margins, although less of a margin may be sufficient for most grade 2 MCTs. Recent studies in cats indicate that MCTs are minimally invasive and may not require surgical margins as wide and deep. However, cats should be staged to ensure that they do not have a splenic primary tumor that is metastasizing to the skin or other sites. Radiation therapy is recommended when complete surgical removal is not possible. A recent study suggested good results in dogs with incompletely resected grade 2 MCTs, although most oncologists still recommend chemotherapy for this grade of tumor.


Orbital Tapeworms in a Pocket Pet

A 4-year old male, intact, captive-bred chinchilla was presented with a 5-month history of progressive exophthalmos of the right eye. Transdermal ultrasonography revealed a fluid-filled cyst within the ventral right orbit. The cyst was removed en bloc and had multiple invaginated protoscolices, characterized by a prominent scolex with refractile hooklets, suckers, and abundant calcareous corpuscles. It was determined that this was a *Taenia serialis* coenurus. The life cycle of *T serialis* involves dogs as definitive hosts and rabbits as intermediate hosts. Infective taeniid segments are shed in dogs’ stools and consumed by rabbits, in which the coenuri are formed. The source of infection in this case was never determined. The chinchilla had been fed commercial pellets, rolled oats, grass hay, and occasional treats of dandelion greens from the owner’s backyard. It was suspected that either the hay or the greens were contaminated with feces from an infected dog.

**COMMENTARY:** Adult tapeworms often do not cause significant problems, but the intermediate life stages can have serious consequences.

Orbital parasitic cysts can be diagnosed with imaging and, in some cases, cytology.—Patricia Thomblison, DVM, MS


HIGHLIGHTS
- Mast cell tumors are common in dogs and cats.
- Cytology is often used for diagnosis.
- Surgical excision is recommended.