Tooth Resorption

Tooth resorption has been reported in domestic, feral, and wild cats, with prevalence rates from 28.5% to 67.0% in domestic cats. Cats with clinically missing teeth are likely to have resorptive lesions, and incidence increases with age. Routine radiography is indicated for early diagnosis, as visible crown lesions indicate late-stage disease. Mandibular third premolars are most commonly affected, and the pattern is usually symmetrical. Gold standard treatment entails tooth extraction, although coronal amputation is sometimes indicated.

Lesions result from external root resorption by odontoclasts. Resorption begins in cementum then progresses to involve the dentine, spreading along the dentine tubules, where it eventually involves the crown and root. The pulp becomes involved later in the disease process. External root resorption in cats is further categorized as noninflammatory replacement resorption, which is self-limiting and reversible, or peripheral inflammatory root resorption (PIRR). The former is usually idiopathic in origin; PIRR is caused by periodontitis. Radiographic appearance will show either normal root radiodensity with an intact periodontal ligament space (Type 1) or radiolucent roots with no clear periodontal ligament space (Type 2). PIRR is believed to cause the Type 1 lesions. Type 2 lesions are noninflammatory and truly idiopathic.

Lesions invading the pulp or communicating with the oral cavity are assumed to be painful, and extraction is indicated. If the root has been extensively resorbed, crown amputation is indicated. Coronal amputation is not indicated for type 1 tooth resorption, for teeth affected by endodontic pathology, or in cats affected by feline leukemia or feline immunodeficiency virus. Successful extraction and healing require clinical and radiographic monitoring.

Commentary

Considering the common nature of tooth resorption in cats, it behooves us as veterinarians to take a moment to survey these animals’ oral cavities. Likewise, because cats are often subclinically affected, taking time to educate clients about what we see or expect to see radiographically can repay us many times over when we need permission for treatment (ie, extraction vs crown amputation). In my experience, spending the extra time during the awake consult to discuss tooth resorption and treatment options makes for a near painless phone update when I contact clients asking for permission to treat affected teeth. Photos and radiographs are great tools for educating clients about pathology and the importance of radiographs and treatment.—Christopher Snyder, DVM, DAVDC

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