Osteoarthritis in Cats: A More Common Disease Than You Might Expect

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Thanks to the marvels of modern veterinary medicine, our pets are living much longer lives. With longer lives, however, come chronic diseases such as osteoarthritis. Osteoarthritis is a commonly recognized disease in dogs. However, it is recognized as a disease of older cats.

Osteoarthritis is a degenerative condition of the joints in which the normal cartilage cushion in the joint breaks down. Eventually, adjacent bones rub against each other, causing pain, decreased joint movement, and sometimes the formation of bone spurs and other changes in and around the joint. Osteoarthritis is a progressive disease; however, it can be actively managed so that the course of the disease is slowed and remaining joint function is preserved.

Physical diagnosis of osteoarthritis in cats is difficult even for experienced veterinarians. Cats, unlike most dogs, can tolerate severe orthopedic disease due to their small size and natural agility. Cats generally resent being physically handled or manipulated during clinical examinations. The examining veterinarian may have difficulty in determining whether a cat is pulling its foot away because of pain or simply because it doesn’t want to be touched. Cats are also notorious for cowering on the examination table and remaining immobile. Due to these obstacles, to diagnose osteoarthritis in cats, veterinarians will often simply rely on the cat owner's observations that their pet is not moving around as well as it once did. Veterinarians may rule out osteoarthritis as a diagnosis by having owners treat their cats for osteoarthritis and seeing if the owners note any improvement in their cats' quality of life.

Changes to osteoarthritis-affected joints in cats are usually subtle. Decreased range of joint motion, commonly seen in dogs, is uncommon in cats. In one study by Clarke and Bennett, published in the Journal of Small Animal Practice, 5 of 86 cat joints with osteoarthritis had decreased range of motion. Crepitus, a grinding/crunching sound or feeling in a joint, is also common in dogs, but uncommon in cats. None of
the 86 joints in the Clarke and Bennett study had crepitus. Thickening of the tissues surrounding affected joints, however, is a common finding (58 of 86 joints in the same study).

Clinical signs of osteoarthritis in cats include weight loss, loss of appetite, depression, change in general attitude, poor grooming habits, urination or defecation outside the litter pan, and inability to jump on and off objects. Surprisingly, lameness is not as commonly reported a clinical sign by owners as one would expect. Because joints are frequently bilaterally-affected (if a joint is affected, the same joint on the other side is also affected), cats can compensate and appear to be walking normally. In the 28-cat study by Clarke and Bennett, 43 percent (12 cats) were described to be limping, 71 percent (20 cats) were described as unwilling to jump, and 67 percent (19 cats) had reduced height of jumps.

The most frequently-affected joints in cats are the elbows and hips, although shoulders and hocks have also been reported. Interestingly, arthritis of the vertebrae and sternum (the axial skeleton) is also common. In one study, 74 of 218 cats were diagnosed with osteoarthritis. Of the 74 cats, 21 (28.4 percent) had osteoarthritis in the limbs and the vertebrae, 24 (32.4 percent) had osteoarthritis in the vertebrae only, and 29 (39.2 percent) had osteoarthritis in the limbs only.

Several studies have been conducted evaluating radiographic changes associated with osteoarthritis in cats. In general, radiographic changes observed in cats with osteoarthritis are less severe than those observed in dogs with osteoarthritis. In many cases, cats with osteoarthritis have no radiographic changes. For example, in one study, 229 out of 292 cats with osteoarthritis had no radiographic evidence of the disease, while evidence was present in the other 63 cats. In another study, 10 of 100 cats with osteoarthritis had no radiographic changes.

A published study in the *Journal of Veterinary Internal Medicine* evaluated the association between radiographic and physical examination findings in 13 cats with osteoarthritis. A total of 208 joints were evaluated for evidence of pain and/or radiographic changes associated with osteoarthritis. Of these, 110 joints were identified as having osteoarthritis (55 joints were painful and 55 joints had radiographic changes). However, only 18 of the 110 joints had both clinical pain and radiographic changes. Painful joints, therefore, did not necessarily correspond to radiographic findings.

Treatment options for cats with osteoarthritis are limited. Non-pharmaceutical treatment options include weight loss for overweight cats, increased exercise, and environmental accommodations (e.g., using litter pans with lower sides for ease of entering and exiting, elevating food and water bowls, and providing soft bedding). With regard to pain relief,
steroids have been used in the past; however, they have fallen out of favor due to side effects. The only approved non-steroidal anti-inflammatory drugs (NSAIDs) for use in cats are Metacam® 5mg/mL Solution for Injection, Onsior 6mg Tablets, and Onsior Injection. Metacam® Solution for Injection is approved for a one-time dose for the control of postoperative pain associated with orthopedic surgery, ovariohysterectomy, and castration in cats. It is not approved for any repeat dosing. Onsior 6mg Tablets are approved only for a maximum of three days’ duration for the control of postoperative pain and inflammation associated with orthopedic surgery, ovariohysterectomy, and castration in cats. Neither Onsior Tablets nor Onsior Injection should be used in cats under 4 months of age. Onsior Tablets should not be used in cats weighing less than 5.5 lbs. No NSAID, therefore, is currently approved for safe, long-term control of osteoarthritis pain in cats. More information about veterinary NSAIDs can be found in the article.

**Development of pain assessment tools**

Pain in animals, particularly cats, is difficult to assess, and there are few validated pain assessment tools. There are various lameness scales and assessment tools used in canine and feline pain studies. Currently, though, much of the data obtained from canine and feline pain studies are “subjective,” meaning that the observer introduces some personal bias when recording pain assessments. An example of a subjective tool is a questionnaire. Researchers are trying to develop more validated questionnaires and subjective and “objective” tools for pain assessment to quantify pain and reduce personal bias. Currently-used objective tools include force plate analysis (measures the amount of force a limb generates at one instant in time) and pressure-sensitive walkways (indirectly measure the amount of force generated at one moment in time).

**Conclusion**

Diagnosis of osteoarthritis in cats is difficult even for the experienced veterinarian. As new methods of pain assessment are developed, osteoarthritis in cats may soon become a readily-recognized and actively-managed disease, alleviating the silent suffering of many older cats.


3Ibid.
5Ibid.
6Clarke and Bennett, pp. 439-445.
7Ibid.