

Meloxicam & Robenacoxib in Cats with Chronic Kidney Disease

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In the Literature

Monteiro B, Stegall PVM, Lascelles PDX, et al. Long-term use of non-steroidal anti-inflammatory drugs in cats with chronic kidney disease: from controversy to optimism. *J Small Anim Pract.* 2019;60(8):459-462.

FROM THE PAGE ...

Osteoarthritis (OA) and chronic kidney disease (CKD) are common in older cats.¹ It has been suggested that OA-associated pain and reduced mobility cause decreased water consumption, leading to worsening prerenal azotemia, constipation, and, ultimately, CKD progression. NSAIDs can decrease lameness in cats with OA; however, use of NSAIDs to manage OA pain in cats with CKD has historically been discouraged.² NSAID administration reduces the renal production of prostaglandins, which are important regulators of glomerular pressure, sodium reabsorption, and renal perfusion. Blocking their production may precipitate renal injury, particularly if a cat is hypovolemic or dehydrated.³

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This article review by the WSAVA Global Pain Council evaluated recent studies that examined whether meloxicam and robenacoxib can be safely administered to cats with CKD. The 3 clinical studies referenced had generally favorable outcomes, although limited study duration, reduced drug dosages, and case selection biases limit the broad application of the results. In the studies, adverse event frequency and lifespan were similar between the meloxicam/robenacoxib-treated and control groups.⁴⁻⁶ In one study, cats receiving meloxicam experienced a slower increase in median serum creatinine over time⁴; it is unclear whether this effect was due to increased mobility and reduced pain, allowing for increased water and food consumption, or possibly due to reduced tubulointerstitial inflammation. These study conclusions are also supported by a cat remnant kidney model study in which euvoletic cats with experimentally induced azotemia did not experience changes in glomerular filtration rate after short-term meloxicam administration.⁷

Despite these findings, NSAID administration in cats with CKD requires careful consideration based on patient stability and owner education. In cats, NSAIDs can cause acute kidney injury, and, in hypovolemic dogs, their administration decreases renal function.^{3,8} To mitigate these risks, the WSAVA Global Pain Council recommends NSAID doses be tapered to the minimal effective dose. In addition, NSAIDs should be avoided in cats with progressive azotemia or weight loss and used cautiously, if at all, in cats with International Renal Interest Society stage 3 or 4 CKD, considering the lack of clinical data in this patient population. Before and during therapy, comorbidities (eg, dehydration, proteinuria, hypertension, hyperphosphatemia) must be carefully managed and regularly monitored. At home, owners must continually assess their cat's water and food intake, changes in weight, and clinical signs. Optimizing care with alternative therapies (eg, environmental enrichment, physical therapy, acupuncture, and nutraceuticals, including chondroprotective agents) is recommended.

... TO YOUR PATIENTS

Key pearls to put into practice:

- 1** Meloxicam or robenacoxib can effectively manage OA pain in cats that have stable, well-managed stage 1 or 2 CKD.
- 2** Titration to the lowest effective NSAID dose is recommended in combination with other nonpharmaceutical therapies for OA pain.
- 3** Meloxicam or robenacoxib administration carries risk. Owners should be educated about these risks and be active participants in monitoring their cat. They should understand that dehydration from decreased food/water intake or increased losses (eg, vomiting, diarrhea, polyuria) in combination with NSAID use is dangerous and can cause acute kidney injury with a rapid decline in kidney function.

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