Because I NSAID So

NSAIDs dramatically improve the quality of life for many dogs with osteoarthritis (OA) but may harm the kidneys. NSAIDs block the cyclooxygenases (COX-1 and COX-2) involved in prostaglandin (PG) synthesis. PGs help maintain renal blood flow and glomerular filtration rate, especially in the diseased kidney. Chronic kidney disease (CKD) and OA are prevalent in the same populations of older dogs, and basal COX-2 expression is greater in dogs than in other species. These factors render older dogs with potentially compromised kidneys more vulnerable to adverse drug effects from NSAIDs in general and COX-2 inhibitors in particular. Clinical studies show that NSAID adverse effects are most likely to occur in the first 14 to 30 days of administration (range, 3 to 182 days). Use of furosemide and other diuretics can enhance nephrotoxicity. Signs of NSAID intolerance include vomiting, diarrhea, inappetence, and dark stools. Older dogs, especially those with concurrent CKD, should receive the lowest effective dose of NSAIDs necessary to control pain and improve mobility. Other treatment modalities (eg, opioids, chondroitin sulfate, glycosaminoglycans, gabapentin, amantadine, omega-3 fatty acids, acupuncture, weight control, moderate exercise) should be considered in these patients. Routine monitoring should include blood pressure, hematuria, and renal and hepatic values measured after 1 month of treatment and every 3 months thereafter. Clients must be educated about potential NSAID adverse effects in dogs so early warning signs are not missed.

Global Commentary
Canine patients with concurrent renal and orthopedic disease (eg, osteoarthritis) are commonly presented in practice. Long-term analgesia is essential for these patients in order to maintain a good quality of life. Choosing the best treatment can pose a problem as the most effective analgesia is often an NSAID; however, this can compromise renal function. Renal disease is common in our feline counterparts and studies have shown that meloxicam can be safely used in cats with stable, closely monitored renal disease. This current paper provides useful information enabling clinicians to provide guidelines to owners about possible adverse effects and the best methods of monitoring these patients.—Stephanie Lolar, BVetMed (Hons), MANZCVSc, DECvim-CA, MRCVS

Reference

Source
Lomas AL, Grauer GF. The renal effects of NSAIDs in dogs. JAAHA. 2015;51(3):197-203.

Oligodendrogliomas in Dogs

A common primary central nervous system neoplasm in dogs, oligodendroglioma typically occurs in older, brachycephalic breeds. Intraventricular oligodendrogliomas can occur as unilateral or bilateral masses, typically involving the anterior portions of the lateral ventricles. The 3 dogs described in this report were: a 5-year-old castrated French bulldog with a history of seizures, disorientation, and blindness; a 5-year-old female bulldog with a 4-day history of lethargy, aggressive behavior, ataxia, and lateral recumbency; and a 7-year-old castrated crossbreed dog with a 2-day history of seizures that culminated in spontaneous death. Clinical signs and MRI findings were consistent with intraventricular tumors. Necropsy revealed intraventricular masses consistent with oligodendrogliomas in gross size and shape, confirmed with histologic features and immunohistochemical staining. It is not clear in these cases whether the tumors originated in the white matter and grew into the ventricles or vice versa. Either way, it is important to realize that, although oligodendrogliomas are typically not included as a differential diagnosis for cerebral ventricular tumors in dogs, they may share MRI and gross features with other ventricular neoplasms.

Commentary
Gliomas in dogs require aggressive multimodal therapy in the form of surgery, radiation, and/or chemotherapy when indicated. Prognosis greatly depends on tumor location as well as invasive and metastatic potential. Alternative or integrative options for treatment focus on palliative measures such as seizure and/or pain control and reduction of intracranial pressure. An integrative treatment strategy could also complement or offset the beneficial or detrimental effects of conventional therapy.—Heather Troyer, DVM, DABVP, CVA

Source