Doxidyl™ (deracoxib)

Chewable Tablets

For Oral Use in Dogs Only
Do Not Use in Cats

ANADA # 200-637, approved by FDA.
*Please read entire package insert before use.

Doxidyl™ (deracoxib) 12 mg, 25 mg, 75 mg, and 100 mg chewable tablets.
Nonsteroidal anti-inflammatory drug (NSAID) for oral use in dogs only.
CAUTION: Federal law (U.S.) restricts this drug to use by or on the order of a licensed veterinarian.
CONTRAINDICATIONS: Dogs with known hypersensitivity to deracoxib should not receive Doxidyl™ Chewable Tablets.
WARNINGS: Not for use in humans. Keep this and all medications out of reach of children. Consult a physician in case of accidental ingestion by humans. **For use in dogs only. Do not use in cats.**
All dogs should undergo a thorough history and physical examination before the initiation of NSAID therapy. Appropriate laboratory tests to establish hematological and serum biochemical baseline data prior to, and periodically during, administration of any NSAID is recommended. **Owners should be advised to observe for signs of potential drug toxicity (See Adverse Reactions, Animal Safety and Post-Approval Experience) and be given an "Information for Dog Owners" Sheet.**
PRECAUTIONS: Dogs needing a dose of less than 12.5 mg can only be accurately dosed through the use of the 12 mg tablet, which can be broken in half to provide 6 mg. Do not attempt to accurately dose smaller dogs through the use of breaking larger tablets. **Inaccurate dosing may result in adverse drug events (See Adverse Reactions, Animal Safety, and Post-Approval Experience).**
Since NSAIDs possess the potential to produce gastrointestinal ulceration and/or perforation, concomitment use of DOXIDYL™ tablets with other anti-inflammatory drugs, such as NSAIDs or corticosteroids, should be avoided. As a class, NSAIDs may be associated with gastrointestinal, renal and hepatic toxicity. The following collective group of clinical signs has been reported with some serious gastrointestinal events, in decreasing order of reported frequency: anorexia, tachycardia, tachypnea, pyrexia, ascites, pale mucous membranes, dyspnea. In some cases, circulatory shock, collapse and cardiac arrest have also been reported. Sensitivity to drug-associated adverse events varies with the individual patient. Dogs that have experienced adverse reactions from one NSAID may experience adverse reactions from another NSAID. Patients at greatest risk for adverse events are those that are dehydrated, on concomitant diuretic therapy, or those with existing renal, cardiovascular and/or hepatic dysfunction. Plasma levels of deracoxib may increase in a greater than dose-proportional fashion above 8 mg/kg/day. Deracoxib tablets have been safely used during field studies in conjunction with other common medications, including heartworm preventatives, anthelmintics, anesthetics, pre-anesthetic medications, and antibiotics. If additional pain medication is needed after a daily dose of DOXIDYL tablets, a non-NSAID/non-corticosteroid class of analgesic may be necessary. It is not known whether dogs with a history of hypersensitivity to sulfonamide drugs will exhibit hypersensitivity to DOXIDYL tablets. The safe use of deracoxib tablets in dogs younger than 4 months of age, dogs used for breeding, or in pregnant or lactating dogs has not been evaluated.
NSAIDS may inhibit the prostaglandins which maintain normal homeostatic function. Such anti-prostaglandin effects may result in clinically significant disease in patients with underlying or pre-existing disease that has not been previously diagnosed. Appropriate monitoring procedures should be employed during all surgical procedures. The use of parenteral fluids during surgery should be considered to decrease potential renal complications when using NSAIDs perioperatively. Concurrent administration of potentially nephrotoxic drugs should be carefully approached.
The use of concomitantly protein-bound drugs with deracoxib tablets has not been studied in dogs. Commonly used protein-bound drugs including cardiac, anticonvulsant and behavioral medications. The influence of concomitant drugs that may inhibit metabolism of deracoxib tablets has not been evaluated. Drug compatibility should be monitored in patients requiring adjunctive therapy. Consider appropriate washout times when switching from one NSAID to another or when switching from corticosteroid use to NSAID use.
Effectiveness: Deracoxib tablets were evaluated in masked, placebo-controlled multi-site field studies involving client-owned animals to determine effectiveness.
Osteoarthritis Pain and Inflammation Field Study: Two hundred and nine (209) client-owned dogs with clinical and radiographic signs of osteoarthritis of at least one appendicular joint were enrolled in this study. A total of 194 dogs were included in the safety evaluation and a total of 181 dogs were included in the effectiveness evaluation. The effectiveness of deracoxib tablets in the control of pain and inflammation associated with osteoarthritis was demonstrated in a placebo-controlled, masked study evaluating the anti-inflammatory and analgesic effects of deracoxib tablets. Tablets were administered by the owner at approximately 1-2 mg/kg/day for forty-three (43) consecutive days.
In general, statistically significant ($p<0.05$) differences in favor of deracoxib were seen force plate parameters (vertical impulse area, peak vertical force) and owner evaluations (quality of life, lameness and overall level of activity).
The results of this field study demonstrate that deracoxib tablets, when administered at 1-2 mg/kg/day for 43 days are effective for the control of pain and inflammation associated with osteoarthritis.
ADVERSE REACTIONS: Deracoxib was well tolerated and the incidence of clinical adverse reactions was comparable in deracoxib and placebo treated animals. A total of 209 dogs of 41 breeds, 1-14 years old, weighing 17-177 lbs were included in the field safety analysis. The following table shows the number of dogs displaying each adverse reaction.

Abnormal Findings in The Osteoarthritis Field Study[1]

Clinical Observation	Deracoxib Tablets (N=105)	Placebo (N=104)
Vomiting	3	4
Diarrhea/Soft Stool	3	2
Weight Loss	1	0
Abdominal Pain (Splinting)	0	1
Seizure	1	0
Lethargy	0	1
Pyoderma/Dermatitis	2	0
Unilateral Conjunctivitis	1	0
Scleral injection	0	1
Hematuria/UTI	1	0
Splenomegaly*	1	0
Grade II Murmur Systolic	1	0

[1]Dogs may have experienced more than one adverse reaction during the study.
*This dog was less active and eating less on enrollment, with elevated WBC, amylase, and AST and died 1 month after exiting the study. The dog was withdrawn from the study on Day 17 with anorexia, lethargy and a suspicion of diarrhea. Follow-up laboratory analyses revealed hypoalbuminemia, hyperphosphatemia, elevated AST and decreased BUN. Follow-up treatment included other anti-inflammatories and antibiotics.
Complete blood count, serum chemistry, and buccal bleeding time analysis were conducted at the beginning and end of the trial. Mean values of all CBC and chemistry results for both deracoxib and placebo-treated dogs were within normal limits. There was no statistically significant difference in the buccal bleeding time between deracoxib and placebo-treated dogs before or after the study, and all results remained within normal limits (less than 5 minutes). The results of this field study demonstrate that deracoxib is safe and effective for the control of pain and inflammation associated with osteoarthritis in dogs.
During this trial, dogs were safely treated with a variety of commonly used medications, including antibiotics, anti-parasiticides, topical flea adulticides and thyroid supplements.
The results of this field study demonstrate that deracoxib tablets are well-tolerated when administered at 1-2 mg/kg/day for up to 43 days for the control of pain and inflammation associated with osteoarthritis.
Postoperative Orthopedic Pain and Inflammation Field Study: In this study, 207 dogs admitted to veterinary hospitals for repair of cranial cruciate injury were randomly administered deracoxib tablets or a placebo. Drug administration started the evening before surgery and continued once daily for 6 days postoperatively. Effectiveness was evaluated in 119 dogs and safety was evaluated in 207 dogs. Statistically significant differences in favor of deracoxib tablets were found for lameness at walk and trot, and pain on palpation values at all post-surgical time points. The results of this field study demonstrate that deracoxib tablets, when administered daily for 7 days are effective for the control of postoperative pain and inflammation associated with orthopedic surgery.
Adverse Reactions: A total of 207 dogs of forty-three (43) different breeds, 1-15 years old, weighing 7-141 lbs were included in the field safety analysis. The following table shows the number of dogs displaying each adverse reaction.

Abnormal Health Findings in The Postoperative Orthopedic Pain Field Study[1]

Clinical Observation	Deracoxib Tablets (N=105)	Placebo (N=102)
Vomiting	11	6
Diarrhea	6	7
Hematochezia	4	0
Melena	0	1
Anorexia	0	4
Incision Site Lesion (drainage, oozing)	11	6
Non-Incision Site Lesions (moist dermatitis, pyoderma)	2	0
Otitis Externa	2	0
Positive Joint Culture	1	0
Phlebitis	1	0
Hematuria	2	0
Conjunctivitis	1	2
Splenomegaly	1	0
Hepatomegaly	1	0
Death	0	1

[1]Dogs may have experienced more than one adverse reaction during the study.
This table does not include one dog that was dosed at 16.92 mg/kg/day for the study duration. Beginning on the last day of treatment, this dog experienced vomiting, diarrhea, increased water intake and decreased appetite. Hematology and clinical chemistry values were unremarkable. The dog recovered uneventfully within 3 days of cessation of dosing.
Incisional drainage was most prevalent in dogs enrolled at a single study site. There were no statistically significant changes in the mean values for hepatic or renal clinical pathology indices between deracoxib tablet- and placebo-treated dogs. Four deracoxib tablet-treated dogs and two placebo-treated dogs exhibited elevated bilirubin during the dosing phase. One deracoxib tablet-treated dog exhibited elevated ALT, BUN and total bilirubin and a single vomiting event. None of the changes in clinical pathology values were considered clinically significant.
The results of this clinical study demonstrate that deracoxib tablets, when administered daily for 7 days to control postoperative pain and inflammation in dogs, are well tolerated.
Postoperative Dental Pain and Inflammation Field Study: In this study, 62 dogs admitted to veterinary hospitals for dental extractions were randomly administered deracoxib tablets or a placebo. Drug administration started approximately 1 hour before surgery and continued once daily for 2 days postoperatively. Effectiveness was evaluated in 57 dogs and safety was evaluated in 62 dogs. There was a statistically significant reduction ($p=0.0338$) in the proportion of dogs that required rescue therapy to control post-surgical pain in the deracoxib treated group compared to the placebo control group. Pain assessors used a modification of the Glasgow Composite Pain Scale (mGCPS) to assess pain.[3] A dog was rescued if it scored ≥ 4 on the combined mGCPS variables of Posture/Activity, Demeanor, Response to Touch, and Vocalization, or if the investigator determined at any time that pain intervention was needed. The results of this field study demonstrate that deracoxib, when administered once daily for 3 days, is effective for the control of postoperative pain and inflammation associated with dental surgery.
Adverse Reactions: A total of 62 male and female dogs of various breeds, 1.5-16 years old, were included in the field safety analysis. The following table shows the number of dogs displaying each adverse reaction. Digestive tract disorders (diarrhea and vomiting) and systemic disorders (abnormal clinical chemistry results) were the most frequently reported findings. There were no distinct breed, age or sex predilections for adverse reactions that were reported. No dogs were withdrawn from the study due to the occurrence of an adverse reaction.

Abnormal Health Findings in The Dental Pain Field Study[1]

Clinical Observation	Deracoxib Tablets (N=31)	Placebo (N=31)
Vomiting	4	1
Diarrhea/soft stool	3	1
Regurgitation	0	2
Increased AST[2]	3	0
Increased ALT[2]	1	0
Hematuria	1	0
Leukocytosis	1	1
Neutrophilia	1	1
Lameness	1	0
Facial Swelling	0	1
Tachycardia	0	1

[1]Dogs may have experienced more than one adverse reaction during the study.
[2]Included animals with results over 2x the high normal.
Post-Approval Experience (Rev. 2010): The following adverse events are based on post-approval drug experience reporting. Not all adverse reactions are reported to the FDA CVM. It is not always possible to reliably estimate the adverse event frequency or establish a causal relationship to product exposure using this data. The following adverse events are listed in decreasing order of reporting frequency.
Gastrointestinal: vomiting, diarrhea, hypoalbuminemia, melena, hematochezia, elevated amylase/lipase, hematemesis, abdominal pain, peritonitis, decreased or increased total protein and globulin, gastrointestinal perforation, gastrointestinal ulceration, hypersalivation.
General: anorexia, depression/lethargy, weight loss, weakness, fever, dehydration.
Hepatic: elevated liver enzymes, hyperbilirubinemia, icterus, ascites, decreased BUN.
Hematologic: anemia, leukocytosis, leukocytopenia, thrombocytopenia.
Neurologic: seizures, ataxia, recumbency, trembling, confusion, collapse, hind limb paresis, nystagmus, proprioceptive disorder, vestibular signs.
Behavioral: nervousness, hyperactivity, aggression, apprehension.
Urologic: elevated BUN/creatinine, polydipsia, polyuria, hyperphosphatemia, hematuria, low urine specific gravity, urinary incontinence, renal failure, urinary tract infection.
Dermatologic: pruritus, erythema, urticaria, moist dermatitis, facial/muzzle edema, dermal ulceration/necrosis.
Respiratory: panting, dyspnea, epistaxis, coughing.
Cardiovascular: tachycardia, heart murmur, bradycardia, arrest.
Sensory: vestibular signs, glazed eyes, uveitis.
Ophthalmic: blindness, mydriasis, conjunctivitis, keratoconjunctivitis sicca, uveitis.
In some cases, death has been reported as an outcome of the adverse events listed above.

[3] Holton, L., Reid, J., Scott, E.M., Pawson, P. and Nolan, A. (2001). Development of a behaviour-based scale to measure acute pain in dogs. Veterinary Record, 148, 525-53.