VETERINARY MEDICINE SCHEDULING STATUS S3

PROPRIETARY NAME AND DOSAGE FORM

NOROCARP INJECTION FOR DOGS

COMPOSITION

The injection contains a solution of 50 mg Carprofen per ml (5 % m/v).

PHARMACOLOGICAL CLASSIFICATION

C 3.1.2.1 Non-selective COX_2 inhibitors.

PHARMACOLOGICAL ACTION

Carprofen is a non-steroidal anti-inflammatory drug (NSAID) with characteristic analgesic and antipyretic activity. Carprofen is a derivative of phenylpropionic acid and a member of the arylpropionic acid class of NSAIDs.
The exact mechanism of action of carprofen has not yet been established but inhibition of prostaglandin synthesis accounts for at least part of its mechanism of action.
Carprofen is a moderately potent inhibitor of Phospholipase A2 and a reversible inhibitor of cyclo-oxygenase (COX). Carprofen has been shown to inhibit the release of inflammatory mediators such as prostaglandins in acute polymorphonuclear leukocytes and chronic inflammatory reactions. Carprofen also demonstrates modulatory effects on both humoral and cellular immune responses. It inhibits the production of osteoclast-activating factor (OAF), PGE_1 and PGE_2 by means of the inhibitory effects on prostaglandin synthesis.
The absorption of carprofen by subcutaneous injection is rapid. The volume of distribution is small with the highest medicine concentrations occurring in plasma. Ratios of tissue to plasma concentrations are less than 1 which is consistent with the 99 % binding of the carprofen to plasma proteins.
Pharmacokinetic data indicate that the mean elimination half-life is approximately 11,7 hours. The main metabolic pathway for carprofen is conjugation of the carboxylic group with glucuronic acid. This reaction is catalysed by UDP-glucuronosyltransferases (UGTs) and leads to the formation of two 1-O-acyl-ß-glucuronide diastereoisomers (R-CPF and S-CPF glucuronides). These UGTs are abundant in the liver, and it is assumed that biotransformation mainly takes place in this organ. Carprofen is eliminated primarily by bio-transformation in the liver. Biliary secretion followed by excretion in the faeces accounts for 60 – 70 % of the administered dose. The excreted carprofen is present in the bile mainly as the ester glucuronide of carprofen or as the ether glucuronide of the two phenolic metabolites of carprofen.
Some enterohepatic circulation of the medicine is observed.

TARGET SPECIES - Dogs

INDICATIONS

Norocarp Injection for Dogs is indicated for control of post-operative pain and inflammation following orthopaedic and soft tissue surgery in dogs.

CONTRAINDICATIONS

Norocarp Injection for Dogs is contraindicated in known cases of hypersensitivity to carprofen.
Norocarp Injection for Dogs is not recommended for use in dogs with bleeding disorders, as safety has not yet been established in dogs with these disorders.
Do not use in cats.

WARNINGS AND SPECIAL PRECAUTIONS

Strict accuracy of diagnosis and close veterinary surveillance are imperative in dogs with clinical signs indicative of gastro-intestinal disease and in dogs suffering from impaired hepatic function.
As a class, cyclo-oxygenase inhibitory non-steroidal anti-inflammatory drugs (NSAIDs) may be associated with gastro-intestinal and renal toxicity. The most frequently reported effects have been mild gastro-intestinal signs. Events involving suspected renal, haematological, neurological, dermatological and hepatic effects have also been reported. Patients at greatest risk for renal toxicity are those on concomitant diuretic therapy, or those with renal, cardiovascular, and/or hepatic dysfunction. Prior to administration of Norocarp injection for Dogs or other NSAIDs to some patients, such as geriatric dogs, a physical examination should be conducted and laboratory tests to establish haematological and serum biochemical baseline data. Periodic monitoring may be appropriate in certain patients. Owners should be advised to watch for signs of medicine intolerance. Dogs receiving Norocarp injection for Dogs should be observed for signs such as inappetence, vomiting, diarrhoea, melaena, polyuria, polydipsia, anaemia, jaundice, lethargy, ataxia, seizure or behavioural changes. Susceptibility to medicine-associated adverse effects varies with the individual patient. The side effects of this medicine class, in rare situations, may be serious and if corrective action is not taken may result in hospitalization or even fatal outcomes.
The safe use of Norocarp Injection for Dogs during pregnancy and lactation has not yet been established.

INTERACTIONS

Concurrent use with other NSAIDS and corticosteroids should be avoided or closely monitored.

DOSAGE AND DIRECTIONS FOR USE

Norocarp injection for Dogs is to be administered subcutaneously.
A dose rate of 4,4 mg carprofen/kg bodymass/day (approximately 1 ml per 11,4 kg bodymass) is recommended to be given ± 2 hours prior to the commencement of surgery and thereafter once daily as required. Duration of treatment will be dependent upon the response seen.
Long-term treatment should be under regular veterinary supervision.

SIDE EFFECTS

Norocarp Injection for Dogs may cause the following side effects:
Gastro-intestinal tract - vomiting, diarrhea, inappetence, melaena, haematesis, gastro-intestinal ulceration.
Behavioural – sedation, lethargy, hyperactivity, restlessness.
Hepatic - inappetence, vomiting, jaundice, acute hepatic toxicity, hepatic enzyme elevation, abnormal liver function test(s), hyperbiliribinemia, hyperbilirubinuria, hypoalbuminemia. Approximately one-third of hepatic reports were in Labrador retrievers.
Renal – Haematuria, polyuria, polydypsia, urinary incontinence, urinary tract infection, azotaemia, acute renal failure, tubular abnormalities including acute tubular necrosis, renal acidosis, glucosuria.
Neurological - ataxia, paresis, paralysis, seizures, vestibular signs.
Haematological – Immune-mediated haemolytic anaemia, immune-mediated thrombocytopaenia, blood loss anaemia.
Dermatological – Pruritis, increased shedding, alopecia, pyotraumatic moist dermatitis (hot spots), necrotizing panniculitis/vasculitis, ventral ecchymosis.
Immunological or hypersensitivity - facial swelling, hives, erythema.

KNOWN SYMPTOMS OF OVERDOSAGE AND PARTICULARS OF ITS TREATMENT

See Side effects and Warnings and special precautions.
Treatment is symptomatic and supportive.

IDENTIFICATION

Norocarp Injection for Dogs is a clear solution in an amber glass vial.

PRESENTATION

Norocarp injection for Dogs is presented in a 20 ml multidose amber vial.

STORAGE INSTRUCTIONS

Store at or below 25 °C.
KEEP OUT OF REACH OF CHILDREN, ANIMALS AND UNINFORMED PERSONS.

REGISTRATION NUMBER - 02/3.1/15

NAME AND BUSINESS ADDRESS OF THE HOLDER OF THE CERTIFICATE OF REGISTRATION

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VETERINÊRE MEDISYNE SKEDULERINGS STATUS S3

EIENDOMSNAAM EN DOSEERVORM

NOROCARP INJECTION FOR DOGS

SAMESTELLING

Die inspuiting bevat 'n oplossing van 50 mg Karprofen per ml (5 % m/v).

FARMAKOLOGIESE KLASSIFIKASIE

C 3.1.2.1 Nie selektiewe COX2 inhibeerders.

FARMAKOLOGIESE AKSIE

Karprofen is 'n nie-steroïdale anti-inflammatoriese middel (NSAIM) met kenmerkende analgetiese en koorswerende aktiwiteit. Karprofen is 'n derivaat van fenielpropioonsuur en 'n lid van die arielpropioonsuur klas van die NSAIMs.
Die presiese meganisme van aksie van Karprofen is nie ten volle bekend nie; alhoewel inhibisie van prostaglandien sintese 'n deel uitmaak van die meganisme van aksie. Karprofen is 'n matige potente inhibeerder van fosfolipase A2 en 'n omkeerbare inhibeerder van siklo-oksigenase (COX). Dit is ook bewys dat Karprofen die vrystelling van prostaglandiene inhibeer in akute polimorfonukleêre leukosiete en kroniese inflammatoriese reaksies. Karprofen het 'n regulerende effek op beide humorale en sellulêre immuunreaksie. Dit inhibeer die produksie van osteoklast-aktiverende faktor (OAF), PGE_1 en PGE_2 deur die inhiberende effek wat dit het op prostaglandien sintese.
Karprofen word vinnig geabsorbeer deur subkutaanse inspuiting. Die volume van verspreiding is klein met die hoogste middel konsentrasie in plasma. Die verhouding van weefsel na plasma konsentrasies is minder as 1, wat in ooreenstemming is met die 99 % binding van Karprofen aan plasma proteïen.
Farmakokinetiese data dui aan dat die gemiddelde eliminasie half-leeftyd ongeveer 11.7 ure.
Die hoof metabolise weg van Karprofen is konjugasie van die karboksiliese groep met glukoroonsuur. Die reaksie word gekataliseer deur UDP-glukoroon-siltransferase (UGTs) en lei tot die vorming van twee 1-O-acyl-ß-glukoroniede diastereoisomeer (R-CPF and S-CPF glukuroniedes). Hierdie UGTs is volop in die lewer, en daar word aangeneem dat biotransformasie hoofsaaklik in hierdie orgaan plaasvind. Karprofen word primêr verwyder deur biotransformasie in die lewer. 'n Galagtige afskeiding gevolg deur uitskeiding in die stoelgang is hoofsaaklik 60 – 70 % as gevolg van die toegediende dosis.
Die uitgeskeide Karprofen is teenwoordig in die gal, hoofsaaklik oor die ester glukoroniede van Karprofen of as die ester glukoroniede van die twee fenoliese metaboliete van Karprofen.
'n Mindere mate van enterohepatiese sirkulasie van die middel is al waargeneem.

Teiken Spesie
Honde

INDIKASIES

Norocarp Injection for Dogs is aangedui vir die verligting van pyn en inflammasie post-operatief na ortopediese en sagte weefsel chirurgie in honde.

KONTRA-INDIKASIES

Norocarp Injection for Dogs moet nie gebruik word in gevalle wat voorheen hipersensitiwiteit getoon het teen Karprofen nie. Norocarp Injection for Dogs word nie aanbeveel in honde met bloedingskwale nie, aangesien veiligheid nie bevestig is in honde met hierdie afwykings nie.
Moenie in katte gebruik nie.

WAARSKUWINGS EN SPESIALE VOORSORGSMAATREËLS

Streng akkuraatheid van diagnose en noukeurige veterinêre monitering is noodsaaklik in honde wat kliniese tekens het van gastro-intestinale siektes en in honde wat ly aan 'n verswakte lewer funksie.
Die veilige gebruik van Norocarp Injection for Dogs gedurende dragtigheid en laktasie is nog nie vasgestel nie. As 'n groep, kan siklo-oksigenase inhiberende nie-steroïdale anti-inflammatoriese middles (NSAIMs) geassosieer word met gastro-intestinale en renale toksisiteit. Die newe-effekte wat dikwels aangemeld word, is ligte gastro-intestinale tekens. Voorvalle wat betrekking het op moontlike renale, hematologiese, neurologiese dermatologiese en hepatiese effekte is ook al aangemeld.
Pasiënte wat 'n hoë risiko loop om renale toksisiteit op te doen, is pasiënte wat gelyktydige diuretiese terapie ontvang, of dié met verswakte renale, kardiovakulêre en/of hepatiese funksies.
Voor die toediening van Norocarp Injection for Dogs en enige ander NSAIMs aan sekere pasiënte, soos ouer honde, moet hulle 'n kliniese ondersoek en laboratorium toetse ondergaan om die hematologiese en serum biochemiese basisvlak data te bepaal.
Periodieke monitering is van toepassing in sekere pasiënte. Eienaars moet ingelig word oor die tekens van intoleransie van die medikasie. Honde wat behandeling ontvang van Norocarp Injection for Dogs, behoort waargeneem te word vir tekens soos aptytverlies, braking, diarree, melena, poliuri, polidipsie, anemie, geelsug, swakheid, ataksie, konvulsies of gedragsafwykings.
Vatbaarheid vir middel-gebonde nadelige effekte wissel afhangend van die individuele pasiënt. Die newe-effekte van hierdie groep middels, in buitengewone gevalle, kan ernstig wees en indien korrektiewe aksie nie geneem word nie, kan dit tot hospitalisasie lei of selfs fataal wees.

INTERAKSIES

Omdat NSAIMs oor die potensiaal beskik om gastro-intestinale ulserasie te veroorsaak, moet die gelyktydige gebruik van ander anti-inflammatoriese middels, soos kortikosteroïde en ander NSAIMs vermy word of baie noukeurig gemonitor word.

DOSIS EN GEBRUIKSAANWYSINGS

Norocarp Injection for Dogs moet slegs subkutaan toegedien word.
'n Dosis van 4,4 mg Karprofen/kg liggaamsmassa/dag (ongeveer 1 ml per 11,4 kg liggaamsmassa) word aanbeveel ± 2 ure voor die operasie en daarna een keer per dag. Behandelingstydperk hang af van hoe goed die hond reageer op die behandeling.
Langtermyn behandeling moet onder die toesig van 'n veearts geskied.

NEWE-EFFEKTE

Norocarp Injection for Dogs kan die volgende newe-effekte veroorsaak:
Gastro-intestinaal - braking, diarree, aptytverlies, melena, hematernese, gastro-intestinale ulserasie.
Gedrag - sedasie, swakheid, hiperaktiwiteit, rusteloosheid.
Hepaties - Aptytverlies, braking, geelsug, akute hepatiese toksisiteit, verhoogde lewer ensieme, abnormale lewer funksie toetse, hiperbiliruninemie, hiperbilirubinurie, hipo-albuminemie. Ongeveer een derde van hepatiese gevalle was in Labrador "retriever" honde.
Renaal – Hematurie, poliurie, polidipsie, urinêre inkontinensie, urienweg infeksie, asotemie, akute renale versaking, tubulêre abnormaliteite insluitend akute tubulêre nekrose, renale asidose, glukosurie.
Neurologies - ataksie, parese, paralise, konvulsies, vestibulêre tekens, aggresiwiteit.
Hematologies – Immuun-bemiddelde hemolitiese anemie, immuun-bemiddelde trombositopenie, bloedverlies anemie.
Dermatologies – Pruritis, verhoogde haarverlies, alopesie, piotraumatiese nat dermatitis (hot spots), nekrotiserende pannikulitis/vaskulitis, ventrale eksimose.
Immuun-bemiddeld of hipersensitiwiteit - swelling van die gesig, veluitslag, eriteem.

BEKENDE SIMPTOME VAN OORDOSERING EN BESONDERHEDE VAN DIE BEHANDELING DAARVAN

Sien "Newe-effekte en Waarskuwings en spesiale voorsorgmaatreëls."
Behandeling is simptomaties en ondersteunend.

IDENTIFIKASIE

Norocarp Injection for Dogs is 'n helder oplossing in 'n amberkleurige glas botteltjie.

AANBIEDING

Norocarp Injection for Dogs word aangebied in 'n 20 ml multi-dosis amberkleurige glas botteltjie.

BERGINGSAANWYSINGS

Bewaar teen of benede 25 °C.
HOU BUITE DIE BEREIK VAN KINDERS, DIERE EN ONINGELIGTE PERSONE.

REGISTRASIE NOMMER - 02/3.1/15

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TRIAL