DEXA LIDO

ANTI-INFLAMMATORY
ANTI-RHEUMATIC AND RUBEFACENT

PHARMACEUTICAL FORM:
Topical.

COMPOSITION:
Each 100 g contains:

Dexamethasone	0.01 g
Lidocaine	2 g
Methyl salicylate	1 g
Excipients q.s.	100.0 g

DOSAGE:

SPECIES	PRACTICAL DOSAGE
EQUINE CANINE	Apply a sufficient amount to cover the area to be treated with a light massage, repeating the operation until total absorption is achieved.

ROUTE OF ADMINISTRATION: Topical.
The frequency and duration of treatment depends on the veterinarian's judgment.

INDICATIONS AND USE:
DEXA LIDO is a topical anti-inflammatory, anti-rheumatic, and rubefacient gel that helps relieve and reduce pain or inflammation associated with training, competition, or accidents involving musculoskeletal or joint disorders such as joint edema, synovitis, muscle and tendon tears, tendinitis, and trauma (without fractures or fissures), as well as in any non-infectious inflammatory process.

ROUTE OF ADMINISTRATION:
Topical.

PHARMACOKINETICS:
Dexamethasone: Half- life in plasma for dexamethasone ranges from 3–6 hours, but duration of action is 36–48 hours. The duration of action is not related to plasma pharmacokinetics. The half-life of dexamethasone in dogs is about 2 – 5 hours, but biologic activity can persist for 48 hours or more.
Lidocaine: Lidocaine is not effective when administered orally due to its high first-pass metabolism, and toxic effects may appear before therapeutic levels are reached with high oral doses. After an IV bolus, its action begins within 2 minutes and lasts 10–20 minutes; without a bolus, continuous infusion may require up to 1 hour to achieve therapeutic levels. IM injections can be administered every 1.5 hours in dogs when IV infusion is not possible. After administration, lidocaine rapidly distributes to highly perfused organs and body tissues, showing high affinity for fat and plasma proteins, especially alpha1-acid glycoprotein, with greater binding in dogs with inflammatory disease. It is also distributed into milk. Lidocaine is rapidly metabolized in the liver into active metabolites (MEGX and GX). Its half-life is approximately 0.9 hours in dogs and may be prolonged in patients with cardiac failure or liver disease. Less than 10% is excreted unchanged in urine.
Methyl salicylate: Methyl salicylate is absorbed through the skin and, once absorbed, it is widely distributed throughout tissues and body fluids via pH-dependent passive diffusion; it also crosses the placental barrier and reaches the cerebrospinal fluid. It is hydrolyzed to salicylic acid mainly in dermal tissues and in the intestine after oral administration, producing metabolites such as salicyluric acid and glucuronides. Elimination occurs primarily through the urine, mainly as salicyluric acid. The plasma half-life is 2–3 hours at low doses but may be prolonged to 15–30 hours in high doses or intoxication.

MECHANISM OF ACTION:
Dexamethasone: Dexamethasone is a corticosteroid with anti- inflammatory and immunosuppressive effects that are approximately 30 times more potent than cortisol and 6–7 times more potent than prednisolone. Anti- inflammatory effects are complex but primarily occur via inhibition of inflammatory cells and suppression of expression of inflammatory mediators. The difference among formulations is that dexamethasone sodium phosphate is a water-soluble formulation that can be injected intravenously. Dexamethasone solution is in a polyethylene glycol vehicle that should not be administered rapidly intravenously.
Lidocaine: A local anesthetic and antiarrhythmic agent that reversibly blocks nerve conduction and ion channels, inhibiting neuronal depolarization. It also has anti-inflammatory effects and reduces free radical formation. It is mainly used for pain management, painful non-infected wounds, and for topical anesthesia, local infiltration, peripheral nerve blocks, intravenous, epidural, and subarachnoid blocks.
Methyl salicylate: A salicylic acid ester with anti-inflammatory and rubefacient properties. It is used topically in liniments and ointments to relieve musculoskeletal, joint, and muscle pain, as well as rheumatic diseases. Its skin absorption allows its use in analgesic balms and counterirritants for neuralgia, myalgia, and arthralgia.

PRECAUTION, WARNINGS AND CONTRAINDICATIONS:
Lidocaine is contraindicated in patients with known hypersensitivity, liver disease, inflamed skin, or regional ischemia, and should be used cautiously with class I antiarrhythmics. Anti-inflammatory drugs should not be used in competition horses because they may mask lameness. Dexamethasone and other glucocorticoids should not be administered to pregnant animals or patients with diabetes mellitus or nephropathy, as they may delay healing and increase the risk of infections. Prolonged glucocorticoid use may cause Cushing's syndrome, adrenal and skin atrophy, as well as gastrointestinal, hepatic, and metabolic alterations. Topical lidocaine may be systemically absorbed and occasionally cause skin irritation; contact with the eyes and ears should be avoided.

DRUG INTERACTIONS:
Lidocaine may present important drug interactions: antiarrhythmics such as procainamide, quinidine, propranolol, and phenytoin can increase cardiac effects or toxicity. Cimetidine and propranolol increase lidocaine plasma levels, while phenytoin decreases them. Furosemide may reduce its antiarrhythmic effect due to hypokalemia, and succinylcholine may prolong induced apnea. In horses, intra-articular administration with penicillins and epinephrine may cause irreversible arthritis. In addition, phenytoin and phenobarbital increase corticosteroid metabolism, whereas itraconazole decreases it.

SIDE EFFECTS:
Dexamethasone: Adverse effects are generally associated with long-term administration of these drugs, especially if given at high dosages or not on an alternate day regimen. Effects gener ally are manifested as clinical signs of hyperadrenocorticism.
Lidocaine: At usual doses and if the serum level remains within the proposed therapeutic range (1 – 5 micrograms/mL), serious adverse reactions are quite rare. The most common adverse effects reported are dose related (serum level) and mild. CNS signs include drowsiness, de pression, ataxia, muscle tremors, etc. Nausea and vomiting may occur, but are usually transient.
Methyl salicylate: Due to its strong irritating effect on the gastrointestinal mucosa, its therapeutic use is almost exclusively limited to external applications as a rubefacient. External application may stimulate or irritate nerve endings, producing a sensation of warmth or cold on the skin, which helps distract from joint pain. It should not be applied to areas of bruised or excoriated skin.

WITHDRAWAL:
Not applicable.

ANTIDOTE:
Not applicable.

STORAGE:
Store in a cool, dry place protected from sunlight at a temperature not exceeding 30ºC. **Keep out of the reach of children and pets.**

SALE:
Veterinary prescription only.

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