Summary of Product Characteristics

1 NAME OF THE VETERINARY MEDICINAL PRODUCT

BONHAREN IVN 10 mg/ml solution for injection for horses and dogs

2 QUALITATIVE AND QUANTITATIVE COMPOSITION

Each ml contains:
Active substance: Sodium hyaluronate 10 mg

For the full list of excipients, see section 6.1.

3 PHARMACEUTICAL FORM

Solution for injection.
Clear, colourless solution.

4 CLINICAL PARTICULARS

4.1 Target Species

Horses, dogs.

4.2 Indications for use, specifying the target species

For the treatment of joint diseases associated with non-infectious synovitis.

4.3 Contraindications

Do not use in case of known hypersensitivity to exogenous sodium hyaluronate or to any of the excipients.

4.4 Special warnings for each target species

Dogs: Due to the lack of information, we do not recommend using the product in animals with known defect in hyaluronan metabolism (e.g. Cutaneous mucinosis in Shar-pei dogs).

4.5 Special precautions for use

i) Special precautions for use in animals
This product does not contain an antimicrobial preservative. Any solution remaining in the vial following the withdrawal of the required dose should be discarded.

ii) Special precautions to be taken by the person administering the veterinary medicinal product to animals
In case of accidental contact with the skin, wash with soap and water.
Avoid contact with eyes. In case of accidental contact with the eyes, blurred vision may occur because of the viscous nature of the product. Rinse the eyes immediately with plenty of clean water.
In the event of accidental self-injection, seek medical advice immediately and show the package leaflet or the label to the physician.
People with known hypersensitivity to exogenous sodium hyaluronate or to any of the excipients should administer the veterinary medicinal product with caution.

4.6 Adverse reactions (frequency and seriousness)

None known.

4.7 Use during pregnancy, lactation or lay

Safety in breeding, pregnant and lactating animals has not been documented. Use only according to the benefit/risk assessment by the responsible veterinarian.

4.8 Interaction with other medicinal products and other forms of interactions

The product precipitates with cationic antibacterial substances (erythromycin, amoxicillin, cefquinome etc.).

4.9 Amounts to be administered and administration route

Intravenous use
Dosage:
a) Horses: 60 mg of sodium hyaluronate (i.e. 6 ml of the product) per animal
b) Dogs: 30 – 50 mg of sodium hyaluronate (i.e. 3 - 5 ml of the product) per animal, depends on the size of the dog

Number of doses: 5 doses
Interval between doses: 7 days

4.10 Overdose (symptoms, emergency procedures, antidotes), if necessary

None observed.

4.11 Withdrawal period(s)

Horses: Meat and offal: Zero days
Milk: Zero hours

5 PHARMACOLOGICAL or IMMUNOLOGICAL PROPERTIES

Pharmacotherapeutic group: other drugs for disorders of the musculo-skeletal system.
ATC vet code: QM09AX01.

5.1 Pharmacodynamic properties

Hyaluronan (hyaluronic acid and salts thereof, HA) maintains morphological and functional integrity in a cellular microenvironment.
HA is produced by many cell types in most of the tissues, including the endothelial cells forming the inner layer of blood vessels. HA is a part of specific protective glycocalyx coating the lumen of blood vessel. HA in glycocalyx plays an important role including the protection against leucocyte adhesion and extravasation, barrier against protein and macromolecule movement and against proteinuria. The interaction of exogenous intravenously applied HA has been described as protection against the inflammatory stimuli like LPS (bacterial endotoxin). This decrease of vascular permeability might be the mechanism responsible for HA beneficial effects on osteoarthritis (OA) progression, as OA and other chronic inflammatory diseases are characterized by higher vascular leakage.
Main molecular structures interacting with HA are known as hyaladherins, group of proteins or glycoproteins able to bind specifically to HA. Main cell surface receptor and hyaladherin is CD44, which plays important role in proliferation, migration and signal transduction.

5.2 Pharmacokinetic particulars

In lymph, the concentration of HA is significantly higher than in plasma as the lymphatic system is main clearance route for endogenous HA.
The principal place of plasma HA metabolism is in the liver. On the surface of sinusoidal endothelial liver cells is present the HA receptor for endocytosis (HARE) which binds HA and mediates its endocytosis from the bloodstream. Endocytosed HA is degraded intracellularly by hyaluronidases to oligosaccharides which are then cleaved to monosaccharides by specialized enzymes. Monosaccharides are metabolized further in pentose cycle or glycolysis. Very low-molecular-weight fragments of HA (oligosaccharides) are also cleared through kidneys.
In an organism, HA is metabolized completely and quickly. After the intravenous administration, the elimination half time from

plasma in rabbits is 2.5 - 4.5 min, in rats it is 3.7 min. The terminal half-life of intravenously applied HA in horses was very short (43+/-29 mins) and after a delay of 3 h, the plasma concentration returned to control values.

6 PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Sodium chloride
Water for injections

6.2 Major incompatibilities

In the absence of compatibility studies, this veterinary medicinal product must not be mixed with other veterinary medicinal products.

6.3 Shelf-life

Shelf life of the veterinary medicinal product as packaged for sale: 3 years.
Shelf life after first opening the immediate packaging: use immediately.

6.4 Special precautions for storage

Protect from light.
Do not freeze.

6.5 Nature and composition of immediate packaging

Glass vials (type I), closed by a bromobutyl rubber stopper with an aluminium flip-off cap.
The vials are packed in a paper box.
Size of packaging:
6 x 6 ml, 5 x 6 ml, 3 x 6 ml.
Not all pack sizes may be marketed

6.6 Special precautions for the disposal of unused veterinary medicinal products or waste materials derived from the use of such products

Any unused veterinary medicinal product or waste materials derived from such veterinary medicinal product should be disposed of in accordance with local requirements.

7 MARKETING AUTHORISATION HOLDER

Contipro a.s.
Dolní Dobrouc 401
561 02
Czech Republic

8 MARKETING AUTHORISATION NUMBER(S)

VPA22837/001/001

9 DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

Date of first authorisation: 17/01/2020

10 DATE OF REVISION OF THE TEXT