# Pana Veyxal® Ointment



Ointment without antibiotics with proteolytic enzymes and vitamins

- Degrades the products of inflammation and necrosis
- Supports the local immune response
- Promotes granulation
- Prevents excessive scar tissues















Pana Veyxal<sup>®</sup> Ointment contains a highly effective combination of proteolytic enzymes and vitamins. This preparation can be used to enzymatically clean wounds as well as to promote the wound healing, especially at sites difficult to access. Proteolytic enzymes dissolve inflammation products and tissue remnants containing proteins or consisting of proteins while healthy tissue is protected against this enzymatic action by anti-enzymes and  $\alpha_2$ -macroglobulin. Moreover, they stimulate the fibrinolysis and the formation of granulation tissue. They support the ideal local immunological response thus accelerating wound healing. The formation of excessive scar tissue is prevented. Within the framework of in vitro and in vivo examinations, it has been proven that proteolytic enzymes, on the one hand, destroy the microorganisms themselves, and on the other hand considerably compromise their virulence factors. As a consequence, the application of the Pana Veyxal<sup>®</sup> Ointment also stimulates rapid wound healing in burns, putrid or purulent processes – possibly combined with a local antibiotic treatment. The healing process is accelerated by vitamins A and E.

## Pana Veyxal® Ointment

Ointment for horses, cattle, pigs, sheep, goats, dogs and cats

Active substances and other ingredients

10 g ointment contain:

Active substances:		
Chymotrypsin	510.00	FIP-U
Trypsin	258.00	FIP-U
Papain	27.75	FIP-U
Retinol palmitate	42,500	IU
all-rac-a-Tocopheryl acetate	25.00	mg

#### Indications

Horses, cattle, pigs, sheep, goats, dogs and cats: Enzymatic cleaning of wounds and promoting the wound healing

Contraindications

None known.

#### Adverse reactions

None known.

If you notice any serious effects or other effects not mentioned in this leaflet, please inform your veterinary surgeon or pharmacist.

#### **Target species**

Horses, cattle, pigs, sheep, goats, dogs and cats

Dosage for each species, route and method of administration Horses, cattle, pigs, sheep, goats, dogs and cats: For application to the skin. Apply once or several times daily onto the wound until complete healing.

Advice on correct administration None

Withdrawal periodHorses, cattle, pigs, sheep and goats:Meat and offal:zero daysHorses, cattle, sheep and goats:Milkzero days

#### Special storage precautions

Keep out of the reach and sight of children.

Store in a refrigerator (2  $^{\circ}$ C – 8  $^{\circ}$ C). Keep the tube in the outer carton in order to protect from warmth.

Shelf-life after first opening the container: 28 days

After this expiry date, any medicine remaining in the container is to be disposed of. Do not use after the expiry date which is stated on the label and the outer carton.

Special warnings Special warnings for each target species: None.

<u>Special precautions for use:</u> Special precautions for use in animals: Not applicable.

Special precautions to be taken by the person administering the veterinary medicinal product to animals: Not applicable.

<u>Use during pregnancy, lactation or lay:</u> Can be used during pregnancy and lactation.

Interaction with other medicinal products and other forms of interaction: The effectiveness of antibiotics is enhanced, especially in case of infected, purulent, necrotic or sanious processes.

<u>Overdose (symptoms, emergency procedures, antidotes), if necessary:</u> Not applicable.

Incompatibilities: Not applicable. Special precautions for the disposal of unused product or waste materials, if any

Any unused veterinary medicinal product or waste materials derived from such veterinary medicinal product should be disposed of in accordance with local requirements. Ask your veterinary surgeon how to dispose of medicines no longer required.

To be supplied only on veterinary prescription.

### Pharmacotherapy

In an experimental study with full-thickness skin wounds of pigs carried out by the Institute for Pharmacology, Toxicology and Pharmacy of the Hanover University of Veterinary Medicine Foundation (Braun et al. 2005) the wound healing effect of Pana Veyxal® Ointment was investigated.

For a period of two weeks, full-thickness skin punches of the pigs' dorsal skin were treated locally once a day with the original formulation (Pana Veyxal® Ointment), with the ointment base (vehicle) and with ointment formulations, that only contained individual substances. In order to investigate the healing rate the wound areas were planimetrically determined.

Figure 1 shows the healing process of the untreated control wounds in comparison to the wounds treated with the original Pana Veyxal<sup>®</sup> formulation. All wound areas with the individual days of measurement are presented in Figures 2 – 4.

Compared to the untreated controls, a significantly better healing of the wounds treated with the test formulations was already evident on day 6 which was maintained for the entire period (Figs. 1 - 4). On day 6 the wound areas treated with original formulation were significantly reduced compared to the untreated controls (Fig. 1, 2). During the macroscopic evaluation, a considerable scab formation of the untreated controls was striking, whereas the remaining wounds treated in differing ways showed less scab formation; this difference was present throughout the whole period of the experimental study.

On day 10 a significantly improved healing rate was recorded for wounds treated with the original formulation compared to the untreated controls. Healing was also significantly improved compared to wounds that were only treated with ointment containing chymotrypsin, papain and trypsin, (Fig. 3).

Following a fourteen-day treatment there only was a significant difference to be seen between the wound areas of the untreated controls and the wounds treated with the original formulation (Fig. 4).

In summary it can be established that the local application of Pana Veyxal® Ointment containing proteolytic enzymes in combination with vitamins, is having a positive impact on wound healing. In terms of an accelerated wound closure, the original formulation (Pana Veyxal® Ointment) is superior to the formulation containing individual components only. These results achieved in the model species pig can be transferred to other species as the mode of action of the ingredients contained in the ointment is generally valid.

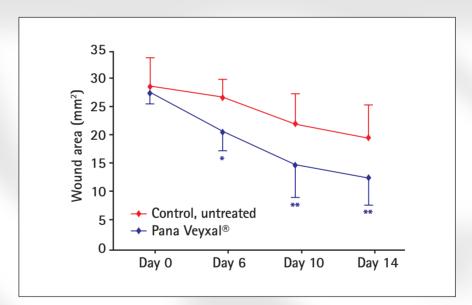
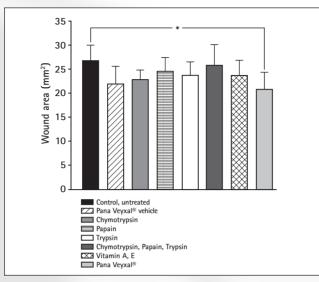
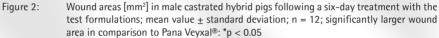


Figure 1: Wound healing process in untreated male castrated hybrid pigs as well as in male castrated hybrid pigs treated topically/locally with the Pana Veyxal® original formulation; improved wound healing through treatment (\*p < 0.05; \*\*p < 0.01); presentation of the wound areas as absolute values [mm2] with the indication of mean value and standard deviation for twelve pigs





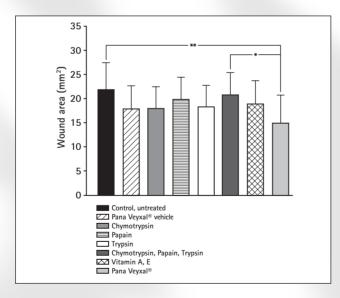


Figure 3: Wound areas [mm<sup>2</sup>] in male castrated hybrid pigs following a ten-day-treatment with the test formulations; mean value  $\pm$  standard deviation; n = 12; significantly larger wound area compared to Pana Veyxal<sup>®</sup>: \*p < 0.05; \*\*p < 0.01

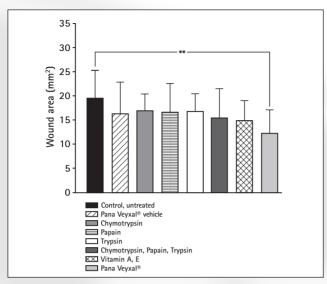


Figure 4: Wound areas [mm<sup>2</sup>] in male castrated hybrid pigs following a fourteen-day treatment with the test formulations; mean value  $\pm$  standard deviation; n = 12; significantly larger wound area compared to Pana Veyxal<sup>®</sup>: \*\*p < 0.01

Package size 20 g tube

The information given in this product brochure conforms to the state of knowledge upon completion. Please read the package leaflet before using the veterinary medicinal product.

Literature is available upon request.

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