



## Alizin - Revolutionary treatment

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Clinical studies show the effectiveness of the Alizin Drug Therapy of Pyometra in Bitches.

The pyometra in dogs and cats is the result of hormonal changes induced in the uterus that allow the installation of secondary infection.

It usually occurs on diestrus, and is caused by increased levels of progesterone and / or sensitization of the uterus. In both cases are formed cysts containing secretory cells which produce large amounts of fluids which are introduced into the uterus. With the advancement of the disease this fluid begins to leak through the vagina.

Besides the proliferation and increased secretory activity of endometrial glands, progesterone is responsible for maintaining the cervical occlusion and inhibition of uterine contraction.

The patency of the cervix (open or closed pyometra) is an important influence on the severity of the disease, its prognosis and the treatment options that may be offered, as occurs after a time the closing of the cervix, and with the accumulation of inflammatory exudate, can occur at rupture of the uterus and the release of this material in the abdominal cavity, taking the animal death within 48 hours.

The body tries to eliminate the infection through renal filtration, but due to excessive secretion is an overload of the kidneys, causing kidney failure and subsequent death of the animal.

The main symptoms of the disease are related to polydipsia, polyuria, vaginal discharge, fever, appetite loss and lethargy.

Conventional treatment is to ovariosalpingohysterectomy (OSH), or surgical removal of the uterus, tubes and ovaries.

Leading European researchers have shown that there is an alternative innovative, effective and safe drug therapy of pyometra: Alizin (aglepristone).

### **Molecule Properties**

Aglepristone active substance is a steroid with activity antiprogestágena.

In vitro studies indicate a strong affinity for this substance, progesterone receptors and glucocorticoids, which explains its effect on the body.

In vivo tests carried out with the application of doses of 10 and 15 mg / kg / day subcutaneously, to dogs and cats respectively, antiprogéstágena confirm their activity in all treated animals.

Subcutaneously, aglepristone reaches the maximum concentration in the body about 2.5 days after the last administration.

Approximately 80% of the administered dose is excreted during 24 days, ie, the removal is done slowly, due to the marked lipophilicity of the drug.

The principal route of elimination is fecal (90% of the total administered), suggesting that the drug is metabolized by the enterohepatic cycle.

### **Mode of Action**

The aglepristone competitively inhibits progesterone receptors due to their high structural similarity with this molecule, and 3 times by progesterone receptors of the molecule itself. With its binding to these receptors, aglepristone prevents the endometrium undergoes the influence of progesterone, therefore occur uterine contraction and dilation of the cervix, with the expulsion of the contents.

### **Clinical Studies**

The study by Fieni and employees in order to demonstrate the effectiveness of the treatment of metritis and pyometra in bitches with Alizin was conducted with 54 females of different ages who had metritis and pyometra (open and closed). The dose was 0.33 ml / kg Alizin, corresponding to 10 mg / kg aglepristone administered on days 1, 2 and 8 after the onset of symptoms. In some cases it was necessary a fourth treatment on day 14.

All animals studied had metritis that responded well to treatment with only aglepristone. In animals with open or closed pyometra, complete success was obtained in 63% of cases with only aglepristone. However it was found that when it was associated cloprostenol - synthetic prostaglandin - aglepristone treatment with a regression of symptoms occurred in a shorter time and an increased rate effective to now 87%.

According to a study conducted by Hoffman et al in 31 females of different ages who also had pyometra, which was used in the same dosage and method of use of the study described above, it was concluded that this treatment is effective in animals displaying function and normal ovarian progesterone levels greater than 1 ng / ml, ie the phase of proestrus and estrus the beginning of the treatment do not respond well as progesterone levels are low.

### **Therapeutic Protocol**

Formula

Each 100 mL contains:

Aglepristone ..... 3.0 g

Vehicle ..... qs ..... 100.0 ml

**For treatment of metritis and pyometra:**

Dogs: 0.33 ml / kg (10 aglepristone mg / kg) subcutaneously on the inner side of the hind limb on days 1, 2, 8 and 15 after the onset of symptoms, a total of four applications or the physician's discretion veterinarian.

### **For interruption of pregnancy:**

Administer 0.33 ml / kg / day subcutaneously the inside of the limb, every 24 hours for 2 days. Make the first application in a second member and the member opposite.

To optimize the distribution of the product, we recommend lightly massaging the injection site after injection. A clinical, laboratory and diagnostic imaging are recommended to confirm the effectiveness of treatment.

Presentation: Bottle-vial containing 10 mL

Imported Product

Imported from Virbac S / A (France)

### **Bibliographical References**

FIENI, F., BRUYAS, JF, TAINURIER D., Battut I. Clinical use antiprogestins in the treatment of metritis / pyometras in the bitch. Report from the joint meeting of EVSSAR / ESDAR 5 th annual conference held in Vienna, Austria, September 13-15, 2001.

Hoffmann, B., LEMMER, W., BOSTEDT, H., failing, K. Application of the antiprogestin is aglepristone conservative treatment of pyometra in the dog. Ausgabe Kleintiere Tierärztliche Praxis, Vol. 28, Iss 5, pp. 323-329, 2000.

Birchard, SJ, SHERDING, RG, Small Animal Clinic, ch. 16, p. 1045, 1998.

## **FREQUENTLY ASKED QUESTIONS**

### **1. What is the dosage, dosage and method of using the Alizin for treatment of pyometra?**

Dogs: 0.33 ml / kg (10 aglepristone mg / kg) subcutaneously on the inner side of the hind limb on days 1, 2, 8 after the onset of symptoms and at the discretion of the veterinarian, if necessary, on 15.

### **2. Only treatment with Alizin pyometra is sufficient to treat?**

No, we recommend the concomitant use of antibiotics (due to existing pus in the uterus), thereby preventing septicemia and fluid (to prevent dehydration and to not overload the kidneys due to uterine infection).

### **3. Which antibiotic should be given?**

According to the authors of the work are given antibiotics: Enrofloxacin (Fieni) and amoxicillin and amoxicillin + clavulanic acid (Hoffmann).

The doses recommended in the literature are the following:

- Enrofloxacin: orally, 5 mg / kg every 24 hours
- Amoxicillin: oral, 20-30 mg / kg every 8-12 hours
- Amoxicillin + clavulanate: orally, 14 mg / kg every 12 hours

### **4. What to do in cases of chronic pyometra?**

The veterinarian should always evaluate the condition of the animal. In chronic cases of pyometra, in which the animal is very weak, we can not rule out the possibility of castration. In these cases, the Alizin improves the clinical condition of the animal, since

most of the uterine lining will be eliminated, which makes the surgical intervention. However, this is an emergency case, and treatment with only Alizin is not sufficient.

**5. Should I ask a supplementary examination?**

Yes, laboratory tests (blood count and renal and hepatic function) and diagnostic imaging (radiography or ultrasound).

**6. Which the incidence of effectiveness of the treatment?**

The work done by Fieni obtained 100% effective in cases of metritis, 63% effective treatment Alizin and only 87% effective when it was associated Alizin and cloprostenol (synthetic prostaglandin).

**7. What is the mechanism of action of Alizin in cases of pyometra?**

The aglepristone competitively inhibits progesterone receptors due to their high structural similarity with this molecule and has an affinity three times greater for the progesterone receptors in the molecule itself.

In its binding to these receptors, prevents the endometrium aglepristone suffer the influence of progesterone, consequently occur uterine contraction and dilation of the cervix, with expulsion of the contents.

**8. What (s) or (s) end (s) adverse (s) treatment with Alizin?**

May occur at the time of administration of the product expressions of pain and some local reactions due to the nature of your vehicle. The estrus administration may be reduced.

**9. Which one (s) number (s) effect (s) side (s) of treatment with Alizin?**

Fieni reports that during the study were observed some side effects like vomiting, salivation and diarrhea, which ceased with the end of treatment.

**10. There is some contraindication for use in the treatment of Alizin pyometra?**

According to studies by Hoffman concluded that this treatment is effective in animals showing normal ovarian function and progesterone levels greater than 1 ng / ml, ie the phase of proestrus and estrus at the beginning of the treatment does not respond as well as progesterone levels are low.

**11. Besides pyometra, the Alizin can be used for treating metritis?**

Yes, Fieni had 100% cure rate in the study was to evaluate the effectiveness of Alizin for the treatment of metritis.

**12. There is the possibility of developing pyometra bitch on heat again next?**

Fieni noted the next three subsequent estrus after the end of his work with Alizin and none of the bitches developed pyometra again.

**13. The use of Alizin can change the fertility of the animal?**

Yes, fertility can be normal or increased.

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