

# Mid-pregnancy termination in bitches with an antiprogesterin: aglepristone (RU534)

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## Introduction

In women, mifepristone (RU 486) can be used in pregnancy termination (Couzinet *et al.*, 1986). In bitches, it has been proved that this drug is efficient and induces abortion without side effects (Concanon *et al.*, 1990, Linde-Forsberg *et al.*, 1992). But mifepristone is not available in veterinary medicine. The goal of this study was to evaluate, in a clinical trial, the efficacy and the safety of a specific veterinarian antiprogesterin, aglepristone to terminate mid-pregnancy.

## Materials and methods

One hundred and twenty-four pregnant bitches brought by their owners to the clinic for pregnancy termination were used in this study. The pregnancies were confirmed by ultrasonography of the uterus. At the beginning of the experiment, the bitches had been pregnant for a mean of  $30.1 \pm 7.4$  days. Each bitch was injected subcutaneously with  $0.33 \text{ ml kg}^{-1} \text{ day}^{-1}$ , repeated once 24 hours later, of an oil-alcohol solution containing 30 mg of aglepristone per ml Alizine® (Virbac-France). Efficacy of the abortion was checked by an ultrasonography of the uterus carried out 14 days later. Its safety was evaluated clinically, via ultrasonography and by blood examination performed at 2 weeks, 2 months and 6 months after the abortion.

## Results and discussion

Fourteen days after the first injection of aglepristone, 117 bitches had no foetal picture during an ultrasonography examination of the uterus. The efficacy of aglepristone, estimated in 124 bitches was 94,4 % with a confidence interval from 88,7 % to 97,7 % ( $P < 0,05$ ). Local tolerance of the drug was checked at the injection site. Following administration of aglepristone, 9 % of the bitches showed a significant inflammatory reaction in at least one of the two injection sites. These reactions were painless and were resolved within a maximum time period of 2 months after treatment. A statistical study has shown that bitches, which had shown local reactions at the injection site, had received a greater volume than those which had not shown any.

Observation of clinical follow-up reports showed that

8 % of the bitches had brief periods of depression and anorexia. These symptoms could be attributed to the phenomenon of abortion (placental detachment, expulsion of the foetus, ingestion of the lochia and of the foetus). Incidence of uterine infection was evaluated by clinical (ultrasonography) and biological criteria (vaginal smears, blood cell count). Localised signs in the urogenital tract were observed in six bitches (4,8 %), which were divided as follows; 4 bitches (3,2 %) had transient problems and 2 bitches (1,6 %) developed metritis. By definition, transient problems did not warrant any follow-up examinations and were not encountered again during subsequent visits. Statistical analysis demonstrated that the frequency of uterine infections increased with the age of the animals. Haematological and biochemical analyses made at each clinical examination showed no biological sign of a toxic effect of aglepristone on bone marrow or on the kidney or the liver metabolism. A tendency towards absolute hyperglobulinemia and an increase in enzyme activity (PAL and ALAT) were observed in some bitches.

In conclusion, the administration of aglepristone terminated mid-pregnancy in dogs with satisfactory efficacy. General safety was excellent. Aglepristone had no influence on the prevalence of uterine infections. This is especially noteworthy if we take into consideration the particular sensitivity of bitches to pyometra.

## References

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