

## PERSISTENT ENDOMETRITIS AFTER COVERAGE IN MARES - CASE REPORT

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a mare belonging to a stud farm located in the city of Matipó-MG.

## INTRODUCTION

Post-coverage endometritis is an inflammation that affects the endometrial mucosa of domestic females, being one of the main causes of subfertility or infertility in mares. This pathology can be chronic or acute, bacterial or idiopathic (KENNEY, 1992) and cause repetition of estrus and increase in the interval between births (NASCIMENTO and SILVA, 2003), generating great economic impact (OLIVEIRA, 2006).

In healthy mares, there is persistent myometrial contractility, while older mares, with a history of multiple births, and/or incapable of responding to the inflammatory process within 48-96 hours after mating are considered more susceptible to this condition. This is due to reduced myometrial activity and decreased elimination of uterine contents, which causes a negative effect on phagocytosis by neutrophils, due to the accumulation of fluid, resulting in a persistent uterine infection (TROEDSSON et al., 1993 - 1995).

Pathological inflammation can occur in cases of failure of the defense mechanism, making the environment conducive to the installation of opportunistic commensal bacteria in the uterus (RICKETTS et al., 1993), namely *Escherichia Coli*, group C *Streptococci* (EGC), in particular: *Streptococcus equi*, *Staphylococcus aureus* and *Rhodococcus equi* (LANGONI et al., 1994).

Spermatozoa are one of the major causes of post-coverage inflammation, so semen that has a high concentration and volume causes greater irritation to the uterus (KOTILAINEN et al., 1994). Mounting a stallion in an infected mare makes it a transmitter of the bacteria responsible for establishing endometritis (THOMASSIAN, 2005).

The objective of this work is to report a case of post-mating persistent endometritis in

## METHODOLOGY

The present case was reported in a stud farm located in the rural area of Matipó-MG. The mare was Campolina, 26 years old and had a history of reproductive infertility. She had a body score of four and there was no visible abnormality in her genitals.

## RESULTS AND DISCUSSIONS

Transrectal ultrasonography (US) was performed at the first evaluation and no apparent reproductive problems were found. The ovaries were cycling with the presence of a corpus luteum from a recent ovulation. The mare was submitted to a hormonal protocol taking into account her reproductive history and age. 2mL of prostaglandin (Lutalyse®) was administered intramuscularly, 72 hours later, a new ultrasound evaluation was performed, but the right ovary had a dominant follicle of 28mm. After 48 hours, a third ultrasound evaluation was performed and the follicle was 36 mm in diameter, thus, gonadotropin-releasing hormone (GnRH) (Deslorelin®) was administered intramuscularly. Twenty-four hours later, natural mating was performed. After one day, the uterus was evaluated by means of US and an accumulation of fluid greater than grade five was observed, which may characterize endometritis.

Eight days after mating, uterine lavage was performed in order to capture the embryo, if fertilization had occurred, but it was found that the mare had not become pregnant. Thus, she was submitted to a second procedure of natural mating, not forming an embryo again, suggesting a picture of persistent post-mating endometritis.

In the fifth follow-up, artificial insemination was chosen, at a dose of 15 ml of fresh semen with addition of diluent (2:1), even so the

animal presented a uterine edema greater than grade five.

It is noteworthy that no bacteria were isolated from the uterine swab. However, it was decided to carry out a new protocol combined with treatment with corticosteroids (Dexamethasone®) six hours before and after artificial insemination, with a dose of 20 and 15 ml intravenously, respectively, in order to reduce the inflammatory process. persistent. In addition, she washed the uterine cavity with colloidal solution.

This animal presented decreased post-ovulation edema, evolving from a grade five

to a grade three edema. Even under these conditions, the mare was pregnant and the embryo was recovered nine days after insemination and transferred to a recipient.

## FINAL CONSIDERATIONS

After all the procedures taken by the Veterinarian responsible for the care, it is suggested that older mares are more susceptible to post-mating persistent endometritis, but with proper follow-up and treatment they can be considered fit for reproduction.

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