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Evaluating the effect of oxytocin or carbetocin combined with flunixin meglumine administration and uterine lavage on the treatment of persistent-breeding induced endometritis in Dare-shuri mares

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Abstract

Persistent-breeding induced endometritis (PBIE) as the third most common disease in mares is a leading reason for infertility. Some mares do not respond effectively to traditional treatments including uterine lavage, and administration of antibiotics, anti-inflammatories, and ecbolic agents. This study explored the combined use of oxytocin and carbetocin with flunixin meglumine for treating PBIE in Dareh Shouri mares. The study involved 45 Dareh Shouri mares with PBIE. Treatment group1: mares were treated with oxytocin, flunixin meglumine, and uterine lavage with normal saline (15); treatment group2: mares were treated with carbetocin, flunixin meglumine, and uterine lavage with normal saline (15); and control, only uterine lavage with normal saline (15). Cytology samples were collected post-ovulation and pre-treatment to confirm endometritis. Pregnancy rates were assessed via ultrasonography 14 days post-ovulation. Results indicated a significantly higher pregnancy rate in the carbetocin-treated group (86%) and oxytocin-treated group (66%). A significant correlation was found between pregnancy outcomes and factors such as uterine edema, follicle size, and the interval between mating and ovulation. This study highlights the potential effectiveness of using oxytocin and carbetocin with flunixin meglumine for treating PBIE in Dareh Shouri mares, though further research is necessary for definitive conclusions.

Key words: Persistent Breeding-Induced Endometritis, Carbetocin, Oxytocin, Flunixin meglumine, Dareh Shouri Mares

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