

Advanced Equine Reproduction Course

by

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Using Irritants to Treat Endometritis

Endometritis leading to infertility can be treated using disinfectant and antiseptic intrauterine agents that are irritants to the uterus. Many times this treatment is also accompanied by systemic antibiotic use. Treatment with irritants usually isn't the first line of treatment used for endometritis. It is commonly reserved for the more persistent cases that have not responded to other forms of therapy such as antibiotic lavage or cases where a specific bacterium cannot be isolated.⁴ As a result of being an irritant, these substances have been shown to improve uterine tone. By doing so, they reduce the diameter of the horns and thus, stimulate expulsion of fluid in the uterine lumen.¹

The most widely used antiseptic is povidone-iodine in a saline infusion. These agents are nonspecific and may be used against a wide variety of offending agents.² The most beneficial time for treatment is during estrus while the cervix is relaxed. This is the period of time when there is a positive influence of estrogens on phagocytosis and clearance of bacteria from the uterus. By stimulating the endometrium, this causes increased hyperemia and cellular and immune response enhancement. Some mares may be overly sensitive to the antiseptic so it is imperative that prior to each infusion the uterus is carefully examined. If edema and hyperemia are noted, this therapy should be discontinued.³ This is significant due to the possibility of adhesions within the reproductive tract.

There is also a mechanical and physical benefit to using the lavage. It clears the uterine contents, dilutes toxins, reduces bacterial numbers, stimulates blood flow, stimulates PMN influx, and it also increases uterine tone.¹ Studies have shown the most beneficial effects produced by the treatment were in mares that were biopsied and found to be a grade three (more severe endometritis.) In one study, kerosene was used and in the grade three mares, nine out of ten conceived and carried out to forty days. Five out of those nine carried to term.⁵

The major indications for use of disinfectants and antiseptics are to reduce the size and increase the tone of the uterus by virtue of direct irritation. They have also been used to decrease the viscosity of the uterine fluid to aid in its expulsion. Irritants are particularly useful in cases with chronic inflammation without infection. In this case, antibiotics are of no use unless they are themselves irritants. In addition, it has been reported that plasma concentration for penicillin can be increased by infusion ten percent Lugol's solution into the uterus prior to infusion of the penicillin.⁶ Irritants are not the silver bullet for every case of endometritis, but they are a useful tool in cases that are not responsive to other forms of therapy.

References

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