

Advanced Equine Reproduction Course

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Treating Endometritis in the Mare Using Irritants

I have never understood the value of using irritants to treat endometritis when, by definition, the endometrium is already irritated. Can anyone present a logical explanation why increasing endometrial irritation (and thereby increasing the possibility of endometrial fibrosis) might be of benefit in treating endometritis?

Many methods of treating endometritis/ endometrosis have been described, suggesting that no one specific treatment is completely adequate. The treatment of endometritis using curettage has been widely scrutinized due to the apprehension that it causes many practitioners. Both mechanical and chemical curettage is described using a number of different methods. The logic behind this therapy is that the disruption of some of the superficial layers of tissue in the endometrium will cause significant inflammation. (Ley, W. B.; 779) The inflammation will subsequently cause a loss of cells in the endometrium that will hopefully be replaced by new, more functional cells. (Ley, W. B.; 779) These new cells should be less involved with fibrosis and will aid in regaining the ability to maintain pregnancy. (Ley, W. B.; 779) These uterine irritants also help to increase uterine tone, which decreases size, and increases uterine fluid expulsion. (Threlfall, W. R.; S248)

One method of mechanical irritation is by curettage. A stainless steel curette is introduced through the cervix and into the uterus. The curette is then scraped longitudinally along the tissues of the uterus. Care must be exercised to prevent excessive damage to the uterus. (Ley, W. B.; 779) The mare should also be in diestrus in order to prevent an excessive amount of hemorrhage. (Ley, W. B.; 783) One should follow this therapy with approximately five days of intrauterine infusions of a broad-spectrum antibiotic to aid in the prevention of infection.

A number of chemical irritants have been tried and debated. Some may believe that antiseptic irritants are far too damaging to the endometrium. However, others have reported the successful use of these same irritants, given adequate dilution. Dilution will significantly decrease the toxicity of the agent to the tissues. There is no question that severe irreversible damage can be created. Some antiseptics that have been used include Lugol's Solution and chlorhexidine diacetate. Both of these used undiluted will have detrimental effects to the tissues of the uterus. (Threlfall, W. R.; S249) Commercial grade Kerosene appears to be one of the agents of choice in chemical curettage of the equine uterus. The aromatics in this mixture provide the short-lived irritation, which subsides by about three weeks post treatment. Dimethyl sulfoxide is also used both for its irritant effects and for the many other positive effects that it possesses in clearing infection. (Ley, W. B.; 784)

In the treatment of endometritis/endometriosis of the equine uterus, curettage should be a last resort. (Ley, W. B.; 779) Other more traditional therapies should be exhausted prior to the implementation of curettage of any kind. While it is reported to have many positive effects, endometrial curettage is a therapy to be used judiciously and only in those cases when all other options have been attempted without resolve. (Ley, W.B.; 779)

References:

Ley, W. B.: Treating Endometriosis in Mares. *Veterinary Medicine*. August 1994, p778-787.

Threlfall, W. R.: Broodmare Intrauterine Therapy. *Compendium on Continuing Education* 11:s246-s254; 1980.