



OXYTOCIN

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Oxytocin is a small protein hormone that is routinely administered to mares for evacuation of uterine fluid and treatment of retained placenta. It may also be used for induction of labor in late term mares.

Mares with a clinically 'normal' uterus should not have any significant amount of fluid in their uterus. The presence of a moderate or large volume of fluid in the uterus visible on ultrasound suggests the presence of active infection, a prolonged non-infectious inflammatory condition, inadequate uterine clearance mechanism or failure of normal cervical function. In most instances, additional diagnostic tests are warranted to determine the cause(s) of the retained fluid. These tests may include culture and cytology of the uterine lumen, speculum examination of the vaginal vault and a digital examination of the cervix. Specific therapy is based on results of the follow-up examinations. Oxytocin administration may be recommended as part of the therapeutic plan for some of these problems. The goal of oxytocin therapy is to stimulate uterine contractions that will hopefully squeeze fluid out of the uterus through the cervix. Oxytocin is a very potent hormone and only a small amount is required to cause uterine contractions. A dose of oxytocin will usually stimulate uterine contractions for 30 to 45 minutes. Administration of a single dose may be sufficient to clear the uterus of fluid

or multiple doses per day for several days may be required.

If a uterine infection is present, additional therapy such as uterine lavage and antibiotics may be necessary. Antibiotics are not necessarily required as part of the therapeutic plan for mares with fluid accumulation not associated with infection. For example, older mares often accumulate uterine fluid following mating or insemination. The fluid is part of a normal transient or temporary inflammatory mechanism that occurs in all mares the response to the presence of sperm in the uterus. The inflammatory response peaks approximately 12 to 24 hours after breeding and a majority of mares will usually reabsorb or expel all of the fluid, dead sperm and debris within 24 to 48 hours after mating.

However, some older mares may not be able to physically clear the inflammatory fluid from their uterus and develop what is termed "persistent post-mating endometritis." In these mares, it is recommended to do an ultrasound examination the day after breeding to determine if uterine fluid is present or absent. Therapy to clean out the uterus usually consists of uterine lavage and one or more doses of oxytocin to stimulate uterine contractions.

Retention of the fetal membranes or placenta is one of the most common postpartum problems in the mare. The placenta of the

mare is considered to be abnormally retained at 3 hours after foaling. The entire placenta or just the tip of the nonpregnant horn of the placenta may be retained in the uterus. The incidence of retained placenta increases in mares with dystocia, prolonged gestation, cesarean surgeries and induced labor. Retained placenta may lead to serious medical complications in the mare such as peritonitis, laminitis (founder) and even death. It is recommended that mare owners consult with their regular veterinarian about early post-foaling preventive treatment for a retained placenta. Often one or two doses of oxytocin may be administered beginning 2 to 3 hours after foaling to help promote passage of the placenta. If the placenta has still not passed after oxytocin therapy, it is recommended that your veterinarian be contacted for further medical intervention.

Oxytocin is the hormone of choice by many veterinarians to induce labor in the late term mare. It should be emphasized, however, that induction of labor for non-medical reasons is generally not recommended. Stringent guidelines need to be followed for a successful outcome. Candidate mares should be at least 330 days in foal, have significant udder development with colostrum present and milk calcium levels of at least 200 ppm. Caution should be exercised when electing to induce labor, as fetal maturity is critical to survival. Early termination of a pregnancy, even at an apparently appropriate gestation length, can result in delivery of a dysmature foal. Under the appropriate circumstances, administration of low-dose(s) of oxytocin can safely stimulate the delivery of a foal within 30 to 45 minutes in the late-term mare.

In summary, oxytocin is one of the most commonly used hormones in equine reproductive management. As always, please consult with your equine veterinarian regarding the safe and effective use of this product on specific mares.