

DAIRY SECTION

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Postpartum Treatment and Hormone Use in the Dairy Cow

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Reproductive problems in the recently postpartum cow are almost always associated with difficult calving and retained placenta. This paper will describe how this practitioner handles such problems and their sequelae.

A cow should be considered having retained her placenta if it has not passed by twelve hours. However, most cows retaining their placenta at six hours postpartum will continue to retain. An injection of 100 I.U. of oxytocin at about six hours postpartum will in many cases aid the cow in cleaning. If the retained placenta is more than 12 to 24 hours postpartum, an injection of 10 mg of ECP (Upjohn) followed in 24 hours by 100 I.U. oxytocin will often aid the cow in cleaning.

Manual removal of the placenta is discouraged due to the possibility of damage to the uterus and cotyledons. Manual removal also increases the possibility of contaminating the uterus. Uterine boluses have been used for many years. The most common formulations are sulfurea, furea, nolvasan, and tetracycline. The furea and nolvasan formulations are preferred by this practitioner.

Much success has been achieved by using a volume uterine treatment (VUT). The formula for VUT is 10 grams of tetracycline or oxytetracycline, one-half gallon of triple sulfurs (high in sulfapyridine), eight ounces isopropyl alcohol and q.s. to one gallon with

distilled water. A 22-inch infusion rod is used to administer one pint of VUT into the uterus. Treatment may be repeated at 72 and 96 hours.

Metritis occurs 7 to 14 days postpartum. It is usually a sequela to retained placenta. Metritis is characterized by a brownish discharge and foul odor. The cow is usually affected systemically. Treatment of metritis revolves around evacuation, hormones, and drugs.

Evacuation may be accomplished by siphoning the exudate from the uterus. Two gallons of a mild iodine solution is pumped into the uterus via large stomach tube (i.d. 5/8 to 3/4 inch) and is allowed to siphon out of the uterus along with the uterine exudate. Evacuation is used only when the cow appears to be systemically affected.

Hormone use consists of using 10 mg of ECP or 10-20 mg estradiol valerate in an attempt to bring the cow into estrus. Hormone use at this time gives erratic results.

Drug use in metritis involves using the VUT formula. One pint is administered via infusion rod and repeat treatment is recommended in two to three days.

Herd owners that do their own artificial insemination can be trained to infuse cows with the VUT formula. Dairymen should be warned to withhold milk for 24 to 48 hours following an infusion of VUT or

most any drug infused into the uterus.

Cows affected systemically should be given parenteral antibiotics. Oxytetracycline and pen-strep are used mostly. Sulfurs are also used, particularly if herd history shows that sulfurs are effective.

Pyometra is also a sequela to retained placenta and contaminated calving environment. A purulent discharge two to three weeks postpartum is characteristic of pyometra. The cow may or may not show estrus. Pyometra will usually persist until resolved either by treatment or, occasionally, spontaneous recovery will happen. Treatment of pyometra consists of evacuation and drugs.

Evacuation can be manual or hormonal. Manual evacuation can be accomplished rectally by gentle massage and outward stripping of the reproductive tract. A surprisingly large amount of exudate can be extracted from an infected uterus by using this technique. Hormones used are ECP 10 mg or estradiol valerate 10 mg. Bringing this cow into estrus will aid in treating the infected uterus.

Drugs used in pyometra are almost as numerous as veterinarians. Iodine has been used for many years with success and continues to be successful. Nolvasan has been used for the past several years with success. The advantage of iodine and nolvasan is that they are

irritating. Irritants in the uterus cause contractions and hyperemia, both of which are beneficial in correcting pyometra. Mild solutions in a quantity of two to four ounces are infused into the uterus. Repeat treatment is recommended if the pyometra persists. Other drugs used are furacin, furacin and pen-strep, pen-strep, gentomycin, neomycin, and oxytetracycline. Milk withdrawal times are to be heeded by practitioners and herd owners.

Fort Dodge's indwelling uterine infuser can be used successfully provided the cervix has closed sufficiently to retain the infuser. Medication is infused into the uterus daily for five to seven days. It is best not to use an irritating drug while using the uterine infuser.

The treatment of udder edema in postpartum cows consists of diuretics alone or in combination with steroids. Drugs used are naquazone (Schering), diuril (Merck), and hydrozide (Merck). Best results with naquazone are when half dosage is used for four to five days. Edema subsides slowly and usually does not reoccur. Diuril orally and hydrozide parenterally both give good results and can be used pre-partum. Udder edema that persists may be related to undiagnosed metritis or cystic ovaries. Treatment for such conditions will in most cases correct the persistent edema.