CEDAR GROVE VETERINARY SERVICE NEWSLETTER

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DIAGNOSTIC AND TREATMENT STRATEGIES FOR UTERINE DISEASES IN DAIRY COWS

Calving is a very traumatic time for a cow and it is estimated that anywhere from 80-100% of these cows will experience some form of bacterial infection in the uterus in the first few weeks. Uterine diseases are one of the most common diseases of cows in the post-partum period and can cause important economic losses in the form of increased culling rates, decreased milk production and decreased breeding ability.

Uterine diseases are a serious concern, but too often both veterinarians and farmers lump them into the same category of a "dirty uterus." Before treatment and prevention protocols can be implemented, it is important to understand the different types of uterine diseases and why they occur.

The first type is Retained Placenta (RP). An RP is defined as a failure of the placenta to be expulsed 24 hours after calving. RP's can occur anywhere from 2-15% of the time. Common reasons that a farm may see an increase in RP's are abortions, difficult calvings, stillbirths, twins, milk fever, and nutritional deficiencies (like selenium and Vitamin E). The economic impact of RP's is mostly confined to decreased milk production and the impact from the cow developing other uterine diseases like metritis.

Metritis is defined as inflammation of all layers of the uterus due to bacterial contamination in the first 21 days of the lactation. Metritis is usually diagnosed by the presence of an enlarged uterus with foul smelling, reddish-brown fluid discharging from the vulva. If this is the only sign, it is considered clinical metritis. If the animal is also systemically ill with symptoms such as lethargy, anorexia, decreased milk yield, and a fever it is considered Puerperal Metritis. The incidence of metritis can be anywhere from 15-20% on farms. The common risk factors for metritis are RP, difficult calvings, twins, and metabolic diseases. Metritis is a problematic disease since it can lead to decreased milk production, delays to first breeding, and increased culling rates.

The next type of uterine disease is an endometritis. An

TEST YOUR DAIRY FARMING KNOWLEDGE

1) Too much potassium in a cow's close-up/pre-fresh ration can lead to with of the following conditions?

a) Milk Fever
b) Mastitis
c) Retained Placenta
d) Diarrhea

2) What percent of cows are, on average, affected by retained placentas?

a) 2%
b) 5%
c) 8%
d) 13%

3) Which of the following is typically listed as the most common reason for culling a cow?

a) Milk Production
b) Reproductive Failure
c) Chronic Mastitis
d) Lameness

Answers on back

endometritis is a uterine infection that persists after 21 days into the cow's lactation. An endometritis is often a milder infection of the uterus. The condition is usually identified by the presence of white purulent discharge at the vulva. The incidence of endometritis is 20% in most dairy herds. The risk factors for endometritis are twins, difficult calvings, RP, and metritis. Endometritis affects farm profitability by causing poor reproductive performance and increasing the culling rate by extension.

Finally, pyometra in cow is defined by white purulent discharge in the uterus in the presence of a CL and a closed cervix. True pyometras are relatively uncommon in dairy cattle with an incidence of about 5%. Pyometras can be caused by poor transition cow management.

With the definitions of the most common uterine diseases established, the focus can now shift to diagnosis. The most common and cheapest way to diagnose uterine disease is by visual observation of vaginal discharge. The best time to observe is 1 hour after milking once the cows have eaten and are lying down. When the cow is lying down, the pressure applied to the uterus forces fluid to be expelled and it is far easier to observe.

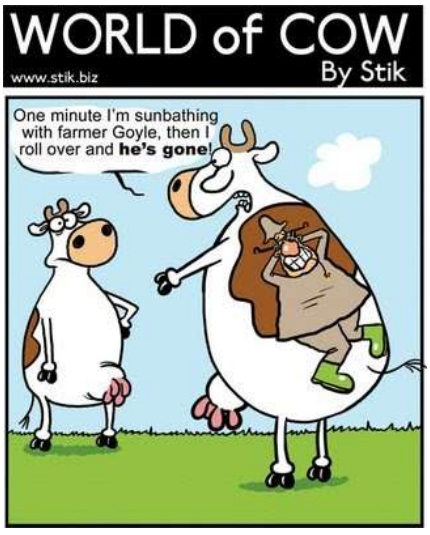
Ultrasonography or rectal palpation by the veterinarian can also be used to assess the presence of thickness in the uterus and fluid. This is important in animals with mild disease or a closed cervix that isn't discharging fluid. This is a common reason why many vets advocate for a fresh check around 30 days, so any uterine diseases can be detected and treated early. Early treatment is important for later reproductive success.

For retained placentas, there are limited treatment options. The best treatment strategy is to allow time for the cow to expel the placenta and provide systemic treatments for fevers, if present. Treating cows with clinical signs do help with the RP and may prevent the development of metritis.

The most common treatment for metritis is to provide systemic antibiotics (Excenel, Excede, Polyflex) for a period of 3-5 days. If the cow is showing additional clinical signs such as fever or dehydration, treatment options such as Banamine/Aspirin and fluids are also appropriate. There is debate whether intrauterine infusions are of any benefit. A recent study indicated that an infusion of iodine tended to improve cure rates as compared to an infusion of dextrose, but dextrose has a greater pregnancy rate per AI as compared to cows that were treated with iodine.

Endometritis and pyometra are generally considered milder infections. Injectable administration of Lutalyse/Estrumate has been used to treat cows successfully. This tends to be more successful once the cow has reached 21 days in milk and have a palpable CL. Systemic antibiotics and intrauterine infusions have been used as well to some success, but often the infections are mild enough to not always warrant those interventions.

Finally, prevention is always key with any dairy cattle disease. With uterine disease, prevention is focused on reducing the risk factors. A well-balanced pre-fresh ration will limit the effects of metabolic diseases and nutritional deficiencies that can limits a cow's ability to fight infections. Transition cow management should be reviewed among staff and monitored, especially when it comes to older cows. Finally, cattle should be bred with bulls that are appropriate to their size to limit calving difficulties. With some good management and easy identification, the bacteria that are always present at calving won't lead to uterine disease later.



Dairy Farm Knowledge Answers
1: a 2: c 3: b