

## Post-Partum Uterine Conditions in Cow

**Akram Al Qudah\***

Senior Veterinarian, Hammoudeh Food Industries Co, Ajlun, Jordan

**\*Corresponding Author:** Akram Al Qudah, Senior Veterinarian, Hammoudeh Food Industries Co, Ajlun, Jordan.

**Received:** November 07, 2022

**Published:** December 09, 2022

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### Introduction

The cow reproductive tract; after calving needs to recover physiologically and physically to become ready for next pregnancy. Although some problems occur in the cow's uterus during this time. Post-parturition problems are often related to management, nutritional and environmental factors which compromise the cow's ability to withstand diseases. Post-Partum problems can cause infertility, reduce the conception and pregnancy rate.

### Metritis

Simply, Metritis is inflammation of the uterus. Acute metritis is inflammatory changes in the endometrium, myometrium and outer layer of the uterus within 10 days' post calving. It's always associated with systemic illness. It might be due to excessive bacterial load; infectious abortion, retained foetal membrane, dirty calving equipment and dystocia or due to concurrent diseases which reduce the ability cow defence mechanisms like milk fever. Toxins produced can lead to toxemia, septicemia and death. This can be fatal if the cow not treated probably. The signs of the cows with metritis will seem dull, high body temperature, reduced appetite and milk yield, dehydration may occur and foul smell vaginal discharge. Cows with metritis should be treated with antibiotics, anti-inflammatory drugs to reduce the pain, intravenous or oral fluids if toxemia is developed. Ceftiofur and penicillin are effective antibiotics for treating metritis.



**Figure 1:** reddish-brown watery and fetid uterine discharge.

### Endometritis

Endometritis, is a chronic form of metritis, and it's the most common form of uterine inflammation. Endometritis is an inflammation of the inner uterine layer only (endometrium) and is seen from 2 weeks and up to 3 months post calving. The affected cows with endometritis show no signs of illness. The condition is considered important as it results in poor conception rates and prolongs calving intervals, repeat breeder, and treatment cost. The possible causes of endometritis can be due to poor calving hygiene, dystocia, abortion, retained foetal membrane, stillborn calf and concurrent diseases.

Cows with endometritis have a vaginal discharge, and the severity of endometritis depends on the amounts of vaginal discharge, uterine and cervical diameter and smell of uterine discharge.

Intra uterine treatment for cows with endometritis is commonly used either by using antibiotics, herbals or chemicals. Cephalosporins antibiotics is effective drugs for treatment of endometritis. Prostaglandins injection is also effective in treatment of endometritis either if corpus luteum is present or not because its affect directly in myometrium.

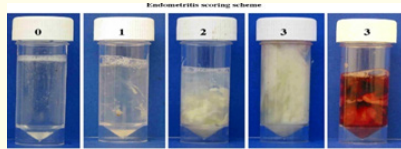
Method	Advantage	Disadvantage
Manual Examination	Cheap	Slow, not accurate
Metricheck	Cheap and Fast	Not all cases produce discharge
Vaginoscopy	Accurate	Slow
Ultrasound	More Accurate	Not all cases detectable
Uterine Cytology	Most Accurate	Cost

**Table 1:** Methods of Endometritis Treatment.

### Pyometra

Pyometra, is the accumulation of large amounts of pus in the uterus, its generally the sequel to chronic endometritis. Affected cows don't show signs of illness.

Treatment of cows with pyometra is by using prostaglandins injections, which is the drug of choice.



**Figure 2:** Uterine Discharge Grades.

Score 0: clear

Score 1: Small flacks

Score 2: <50% white or off-white mucopurulent discharge

Score 3: >50% Purulent discharge.

### Summary

- Metritis is an infection of all uterine layers, and all cows with metritis have a systemic sign.
- Endometritis affects only the lining of the uterus without systemic signs, and it's the most common form of uterine infection.
- Cows at high risk should be identified and checked by a vet at least two weeks before you plan to start mating the cow.
- Sick cows with a smelly discharge within 5 days of calving should be presented to a vet as soon as possible.
- The same factors which cause retained fetal membranes increase the risk of uterine infection.