

# Purulent Endometritis in Cows and Its Treatment

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**Abstract:** *Clinical and subclinical endometritis (SCE) occurs in postpartum lactating cows within a few weeks. Immunosuppression, microbial proliferation, and disruption of the endometrial lining of the uterus are associated with an increased risk of developing metritis endometritis, which may be associated with an increased likelihood of development. Diagnostic Approaches for Offices Vaginoscopic participation is the preferred method of detecting pus in the vaginal cavity as a general diagnostic criterion using metric and ultrasound examination. Identification The pathological number of microbes in the uterus seems difficult Samples are collected using special instruments. Inflammatory changes can be detected with high accuracy in the endometrium (CS-affected cows) by histological sections or hysteroscopy of endometrial biopsy specimens, but such approaches are limited to specialized cases.*

**Keywords—:** epizootic, endometritis, complications, cattle, uterus, bacteria, "Sepranol" "Uteroton"

## 1. INTRODUCTION

In agriculture of the Republic, especially in animal husbandry and in improving animal health and the quality of raw material production The organization and implementation of highly qualified and cost-effective veterinary services play an important role in ensuring the epizootic health of the territory of our country.

The organization of veterinary work is based on the achievements of all specialized disciplines in this field and includes key issues that veterinary professionals need to know. These are the mantles of the veterinary service in the Republic: development on veterinary issues; Establishment of veterinary services in the republic, regions, districts and farms; to be the gold of diseases and medical work; anti-epizootic measures; veterinary service material security and so on. Endometritis is an acute inflammation of the lining of the uterus, most often occurring on days 8-10 (sometimes even days 3-6) after birth. Even at the advanced level of modern technologies of feeding cattle and veterinary science,

postpartum endometritis plays an important role in obstetric

and gynecological pathology in cows. It is taken continuously at the time of illness or not. It is always possible to diagnose the disease at an early stage, but treatment is usually ineffective by raising the hand late. In most households, endometritis is not given enough attention, and the continuation of this disease in animals supports its condition. Where can a completely cured endometritis be accompanied by a completely cured one? The service life of the animal is extended. If a cow participates for 180 days, you realize how much of a contradiction it is to the farm that it takes effort to rehabilitate, re-fertilize, and feed it. The state spends 5,000 soums to fertilize one career, what about re-fertilization 3-4 times? As a result, it can be said to be a

temporary reality, in addition to the cost of re-fertilization and at the same time savings for combined services.

Another aspect is the economic damage caused by milk loss. In detecting any disease, the animal is aggravated by not giving enough milk. This is especially damaging when we use tetracycline-like bacterial agents for treatment. The fear of building antibiotics in dairy-supplying livestock is 30%. Economic damage from the birth of low calves and the loss of the animal. Even if a cow's endometritis is successfully treated, she will often have to spend it on a third birth. According to statistics, every second cow is expended. In the case of imported livestock, large-scale damage to agricultural production.

## 2. Main Body

### Fibrous endometritis

In this form, the disease is also in the majority cases develops after the birth of the calf. If the animal has good immunity, the pathological process passes quickly without special treatment. With complications, cows often encounter after the first birth. Despite the fact that the uterus is not deep, fibrotic inflammation develops. Inside the body, yellowish films form. If the animal's health starts to deteriorate rapidly, it can speak of the transition of the disease to a necrotic form about the formation of sepsis.

### Necrotic metritis

If the birth of an animal has gone through with complications, there were strong gaps, damage to the epithelium, at best, postpartum endometritis would develop. Cows that give birth for the first time are often complicated by necrotic metritis. This disease, in which rapid destruction of uterine tissue is observed. Appears purulent foci of inflammation. If the animal does not help in a timely manner, it dies.

Tearing off, the tissues of the uterus begin to secrete toxins. Harmful substances spread throughout the body of the cow. As a result, dangerous complications develop, such as inflammation of the musculoskeletal system, arthritis,

etc. Acute endometritis with necrotic tissue damage is rapidly progressing. The animal significantly deteriorates well-being, which can be easily noticed. Symptoms such as heart palpitations, fever, diarrhea appear. The characteristic sign of necrotic metritis is paralysis of the hind limbs. A cow can not stand, refuses food and water.

If there is no full-fledged therapy, only a few days the animal may die. Therefore, it is important to seek help from a veterinarian in good time, even if the cervical endometritis is at an early stage of development.

#### **Gangrenous metritis**

Disease in this form develops when launched putrefaction. Anaerobic bacteria enter the damaged epithelium of the uterus. Treatment of endometritis in cows in this form is long and costly. In many cases, the animal can not be saved at all. Cows have symptoms of severe intoxication, sepsis of affected uterine tissues develops. Characteristic are also the following symptoms: a strong palpitation, rapid breathing, a significant increase in body temperature, a significant decrease in the amount of milk. The condition of the cow at this stage is characterized as severe. The animal can not stand, it can be unconscious.

In most cases, the disease occurs in parallel with various vaginal infections. In addition, the inflammation can go to the peritoneum of the cow. As a result, peritonitis develops. It often happens that the uterus quickly fills with purulent contents, which does not have time to flow out. The threat of organ rupture is growing, which also leads to the inevitable death of the animal.

#### **Causes of pathological process**

Acute endometritis of cows in most cases develops after childbirth. Incorrect manipulations lead to the fact that the animal begins an inflammatory process. Factors contributing to the entry of pathogenic microflora into the uterus include: the lack of disinfection of tools, poor hygiene of a veterinarian, frequent abortions without compliance with safety standards.

In some cases, endometritis in an animal does not associated with delivery. Inflammation can develop if the conditions of keeping the cow are violated: there is no regular cleaning in the shed, and the cow does not receive hygiene procedures. In addition, the animal may have weakened immunity. For this reason, endometritis often develops during the winter-spring period. The trigger mechanism can also be inflammatory processes in the vagina. Therefore, even if the cow behaves absolutely normal, before planning its pregnancy, it is worth a preventive check with a veterinarian.

#### **When to start worrying?**

Unfortunately, at an early stage it is not possible to diagnose endometritis in a cow. Symptoms can be so insignificant that it is almost impossible to notice them. Signs of acute inflammation include: the presence of putrefactive elements with an unpleasant odor in the animal's lochia, a sharp reduction in milk yields, a decrease in appetite of the animal, a sharp loss of weight, an increase in body temperature. A precise diagnosis can only be

made by a qualified veterinarian. Initially, a visual inspection of the vagina of the animal. Typical is the enlargement of the walls of the organ, the appearance of mucous or putrefactive discharge. In the region of the genital organs of the animal, gray, crusty crusts can be seen. It is possible to determine precisely what causes the pathological process, thanks to the histological examination of the detachable. In addition, in this way an expert can determine the sensitivity of a pathogenic microflora in order to prescribe appropriate therapy.

#### **Causes of endometritis**

The number of cattle infected with endometritis after calving increases with their feeding and improper care of pregnant cows. But there can be a variety of other reasons. According to statistics, 49% of endometritis is associated with delayed placental abruption. In second place is the subinvolution of the uterus (delay in recovery). Typically, uterine involution should occur within 14 days (this is the ideal condition). But in real life, this process takes up to a month, and it depends on the norm and order of eating, as well as other indicators. Failure of the uterus to return to its normal state, in which a lesion accumulates, which in turn causes endometritis. 5% of endometritis is caused by abortions. Pathological complications account for 4%. It should be noted that much depends on the human factor during pathological births. Carelessness of the specialist, disruption of the birth process and non-observance of cleanliness, uterine prolapse and other unpleasant conditions can lead to endometritis.

Even in the normal course of childbirth, the incidence of endometritis is 3%. This means that there are other causes of endometritis, but it is not always possible to clearly indicate them in the statistics. In particular, these reasons include:

- Endocrine changes in the normal course of childbirth is 3%;
- Excessive feeding;
- Pathological processes in intoxication;
- Injuries to the mucous membrane during examination, fertilization.

The importance of the human role in the artificial insemination of cattle is no secret. Cases of microbial introduction into the animal or injury to the mucous membrane during artificial insemination also cause endometritis. Laboratory examination of endometritis in cattle reveals mainly the following microflora: streptococci 66%, staphylococci, coli escherichia and fungi (19.5%).

Naturally, when diagnosing endometritis, it is advisable to perform such laboratory tests, although the treatment is clearly targeted and can also save time.

However, it is not advisable to wait 2 weeks to determine whether the cause of the disease is fungal or bacterial by performing such tests, on the contrary, the use of concomitant therapies with equal effect on all from the beginning gives good results.

#### **Prevention of endometritis in cows**

Unpleasant consequences can be avoided if the animal undergoes regular preventive veterinary examinations. The birth process requires special attention. Once the calf has

emerged, the animal's ancestral pathways should be thoroughly cleaned using an antiseptic solution. Sepranol or Uteroton can be used as prophylaxis of endometritis. Adherence to the animal's immune system is redundant. The cow should be fully rested and fed.

### 3. Conclusion

Subclinical endometritis is a uterine inflammation probably originated by the alteration of the inflammation regulatory mechanisms. The inflammatory status may abnormally persist after elimination of postpartum bacterial contamination, which may be associated with an unbalanced production of anti- and pro-inflammatory factors. Prevalence of subclinical endometritis in dairy farms may reflect the immune status of cows, which in turn would be indicative of the metabolic status of cows in transition and, eventually, of the nutritional management of farms.

Carrying out prevention of all calving cows. Special preparations must necessarily process all animals in the first postpartum days. Animals require more attention after difficult deliveries or retention of the afterbirth. During the dry period, vitamins should be given to prevent the onset of disease after calving. It is necessary to feed animals correctly and in a balanced way. The task of treating cows for endometritis is extremely difficult and often expensive. In addition, the use of many drugs leads to the fact that drinking a sick cow and eating its meat is contraindicated for a long time, because drugs accumulate in the tissues and organs of the animal. That is why the best way out would be to carry out preventive measures that help prevent postpartum endometritis. How to prevent the disease?

Properly organize obstetric aid. To do this, you need to control the process of childbirth, prepare the room and equipment. Such prophylaxis is necessary for every household, and only experienced specialists should deal with pregnant cows. It is necessary to equip the individual ancestral boxes, where to transfer animals in advance. Before placing animals in a stall, it and the feeders must be disinfected, and after drying and processing the floor is covered with dry and clean sawdust or straw.

Organize walking animals. After two or three days after the birth of the calf, the cow must walk, which will be a good prevention of diseases. We should not forget about pregnant cows, they also need walks to the birth. Walking is useful for the prevention of postpartum diseases and for the birth itself.

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