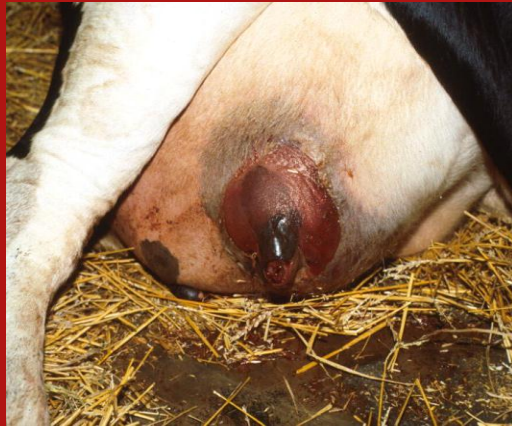


Mastitis

GARGET OR CAKED UDDER



Guidelines for Treatment

- ▶ **Detoxification of the toxin**
- ▶ **Elimination of Microorganism**
- ▶ **Supportive Therapy**
- ▶ **Enzymes**
- ▶ **Ant inflammatory**

1. Detoxification of the toxin

A. Physical Detoxification

- 1. Repeat milking of udder every 2 hours to discard the toxins frequently.**
- 2. Cold fomentation or application of crushed ice in bag on the udder: Vasoconstriction - decrease absorption of toxins to blood**

1. Detoxification of the toxin

B. Chemical Detoxification

1. **Diuretics:** decrease absorption and increase excretion of toxins
2. **Fluid therapy:** Dilution of toxins in blood
3. **Anti-inflammatory:** act as anti-toxin and decrease spread of toxins

2. Elimination of microorganism

A. Systemic “Parenteral”

1. In all cases of mastitis characterized by systemic reaction to:

- ❖ **Prevent toxemia and bacteremia**
- ❖ **Help local treatment of udder**

2. In case of badly swollen udder to avoid:

- ❖ **obstruction of teat orifice**
- ❖ **Decrease drug diffusion.**

2. Elimination of microorganism

B. Local treatment

“1- Intramammary infusion”

❑ **Definition:** Disposable plastic syringe contain standard dose of antibiotic dispensed in oil or aqueous base with or without ant inflammatory

❑ Precautions:

- 1. Complete sterile condition to avoid entrance of MO**
- 2. Washing the udder by warm water and soap**
- 3. Drying by towel paper**
- 4. Disinfection by alcohol or isopropanol 70 %**
- 5. Teat dipping in antiseptic solution as iodine or sodium hypochlorite**
- 6. Complete evacuation of the udder either by hand stripping or by oxytocin injection**

❑ Procedures:

- 1. Tilting the teat in acute angle**
- 2. Introduce syringe through teat orifice in gentle rotatory movement then evacuate content of syringe**
- 3. Close teat orifice and make massage of udder to help in diffusion of drug**
- 4. Milk from infected quarter should be discarded and not used for animal or human consumption for at least 3 days after last infusion.**





Dose:

- a. Acute mastitis: 1 syringe / quarter twice daily for 3:5 d
- b. Chronic mastitis: 1 syringe / quarter once daily for 3:5 d

- ❑ **Commercial intra mammary infusion used in veterinary field:**

1- Mastiprim:

- **Sulphadiazine**
- **Trimethoprim**
- **Prednisolone**

2- Mastalon:

- **Neomycine**
- **Oleandomycine**
- **Oxytetracycline**
- **Prednisolone**

- ❑ **Commercial intra mammary infusion used in veterinary field:**

3- Ampicillin and Cloxacillin:

- **Ampicillin**
- **Cloxacillin**

4- Lactaclox:

- **Ampicillin**
- **Cloxacillin**

5- Orbenin extra:

- **Cloxacillin**

- ❑ **Commercial intra mammary infusion used in veterinary field:**

6- Synulox:

- **Amoxycilline**
- **Clavulanic acid**
- **Prednisolone**

7- Cobactan:

- **Cefquinome**

2. Elimination of microorganism

B. Local treatment

“2- intraparenchymal injections”

- ❑ **Definition:** Injection of systemic antibiotic directly into parenchyma of mammary gland by passing needle through the skin of udder into mass of gland
- ❑ **Indications:**
 1. Peracute mastitis for rapid response
 2. Badly swollen udder with obstructed teat orifice
 3. If Systemic antibiotic not give rapid response

3. Supportive therapy

- ▶ **Tonics**
- ▶ **Vitamins**
- ▶ **Fluid therapy**
- ▶ **Plenty of food and water**

4. Enzymes

- ▶ Mainly in chronic mastitis “Fibrosis & shrinkage of mammary gland” **To** Destroy fibrous tissue and liquefy pus

- ▶ **Examples:**

Alpha-chemotrypsin (50 mg) , Streptokinase (20.000 IU) and Streptodrinase (5.000 IU).

5. Anti-inflammatory

- ▶ Mainly used in case of mastitis accompanied with sever inflammation and toxemia to decrease the degree of inflammation besides decrease the toxins absorption and spread.

- ▶ **Examples:**

Ketodel 10 % , phenyl ject (1.5 cm / 50 kg), Diclo 5% (1 cm / 50 kg), finadyne (1-2 cm / 45 kg) and topical application of Mega mast ointment.

Chronic incurable Mastitis

► Definition:

- Fibrosis and shrinkage of glandular tissue of the udder which not respond to any treatment

► Treatment:

- Incurable quarter should be permanently dried off by infusion with caustic agent like 30-60 ml 3 % silver nitrate or 20 ml 5% cupper sulphate.
- 2 successive infusions are required
- When the reaction is sever, evacuate the infused chemical until the reaction decrease if no sever reaction evacuate it after 2 weeks.
- Mastectomy.

Subclinical Mastitis

► Definition:

- Form of mastitis in which the animal doesn't show any systemic reaction **but only**, decrease milk production and increase SCC.
- Represent 30 % .
- Diagnosed only by CMT and microbiological examination.
- Treatment of subclinical mastitis occur in dry period and is very important to avoid spread of the diseases in the herd

Treatment of dry cow mastitis

► Definition:

- Treatment of the mastitis in dry period.

► Indication:

- Treatment of chronic cases of mastitis.
- Treatment of subclinical cases of mastitis.
- Cow suffer from mastitis in the previous lactation.
- Prevent infection during dry period.

Treatment of dry cow mastitis

► Advantages:

- Curative rate is higher in dry period than lactating one.
- Retention rate of the drug is higher in dry period than lactating one.
- Avoid decrease in milk production.
- Avoid contamination of milk with drug residues.

❑ Procedures:

- 1. Washing the udder by warm water and soap**
- 2. Drying by towel paper**
- 3. Disinfection by alcohol or isopropanol 70 %**
- 4. Teat dipping in antiseptic solution as iodine or sodium hypochlorite**
- 5. Treat all the quarters with long acting antibiotic by intramammary infusion (6-8 weeks)**
- 6. Disinfect the teat and then close with wax to avoid let down of milk.**

Control of mastitis

- ▶ **Detection of the infected cases (monitoring the infection rate).**
- ▶ **Udder and teat sanitation.**
- ▶ **Prevention of spread of infection and minimizing animal susceptibility.**
- ▶ **Milking order.**
- ▶ **Dry period treatment.**
- ▶ **Culling of chronic cases.**