Mastites

Mastitis is the **inflammation** of the **mammary gland** and **udder tissue**. It is a major **endemic disease of dairy cattle**.

It usually occurs as an **immune response** to bacterial invasion of the teat canal by variety of bacterial sources present on the farm, and can also occur as a result of chemical, mechanical, or thermal injury to the cow’s udder.

 Milk secreting tissues are various ducts throughout the udder can be damaged by**bacterial toxins** and damage to the udder occurs. Severe acute cases can be fatal.

Mastitis is most often transmitted by contact with **milking machines** and through contaminated hands or other materials.

Disease-causing bacteria are called **pathogens**. The most common **mastitis pathogens** are found in the udder tissues, spreading from **cow-to-cow** (*contagious****pathogens***) or in the herd’s surroundings (*environmental****pathogens***).

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       **Contagious pathogens** that cause mastitis tend to **live on the cow’s udder** and **teat skin** and transfer from **affected cow (or quarter) to unaffected cow (or quarter) during milking**. They adhere easily to the **skin**, **colonising the teat end**and then**‘grow’**into the teat canal; this is where infection occurs. Because of this, post milking teat **disinfection** and **dry cow therapy play an important role** in controlling .

**Clinical Sign**

 The **degree** of illness and the**symptoms** present will depend on many factors, such as:

 **nutritional and immune status** of the cow

 **pathogen**is responsible for the **inflammation**

 range of **environmental factors** such as **cleanliness, humidity**and **ambient temperature**. Moderate to severe clinical cases can be very painful and unpleasant for the cow.

The most obvious symptoms of clinical mastitis are abnormalities in:

·         The **udder** such as **swelling, heat, hardness, redness**or **pain** and;

·         The **milk** such as **watery appearance, flakes, clots** or **pus**.

Other symptoms, depending upon the **severity** of the illness and how **systemic** can also include:

·         **Reduction in milk yield**

·         **Increase in body temperature**

·         **The lack of appetite**

·      **Signs of diarrhoea and dehydration**

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 **Treating Mastitis**

*Visual examination* of the udder and *palpation* prior to milking should be part of all milking routines.

**Mild mastitis –**

abnormality of the milk is the main sign, with little evidence of change in the udder and no systemic signs such as dullness of inappetance.

**Moderate mastitis –**

changes in the udder are detectable as well as milk changes. These changes can occur rapidly or slowly*.*

**Severe mastitis** –

 marked changes in the udder and milk are combined with major systemic effects in the cow such as fever, loss of appetite, depression, shock, dehydration.

**There are two bases of most treatment regimens for mastitis:**

Intramammary antibiotics (the classic mastitis tube) and systemic antibiotics (given by intramuscular or subcutaneous injection).

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        ***Intramammary antibiotics***

should be the first-line treatment for cows with mild uncomplicated mastitis in a single quarter.

·         ***Systemic antibiotics***

should be used when more than one quarter is affected and in severe cases of the disease.

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