**Mastitis in cows**

**What is it?**

An infection of the tissue of the mammary gland, that nearly always comes from outside the udder originally.

**What does it look like?**

A hard swollen red painful udder with typically milk that is either discoloured or with clots in it. In severe cases the animal itself will be ill resulting in fever, and general signs of sickness sometimes even death.

**Types of mastitis.**

Summer mastitis: infection of the udder tissue in non lactating animals (dry cows, heifers or even bulls and calves). Typically there will be a lot of puss trapped in the udder and the animals often are very sick and have a high fever.

 Treatment: quick intervention is essential due to the very high fever. aggressive and often surgical treatment is necessary. Abortion in pregnant animals or even acute death is not uncommon . In surviving animals often the affected part of the udder will be destroyed or at least severely compromised for future lactations.

 Prevention: this type of infection is transmitted by flies so any anti fly treatment is beneficial alongside hygiene during the dry period.

Acute e-coli mastitis: this type of mastitis often follows quickly before or after calving and generally gives a painful red swelling of the udder and brown water like milk. Due to the high fever and toxins death can occur quickly.

 Treatment: apart from local udder tubes and general antibiotics a suitable shock therapy and anti inflammation therapy will be necessary alongside excellent patient care for at least 3 days.

Acute mastitis during lactation:

This is an inflammation and infection of the udder during the lactation period which result in the cow also being sick herself. She will often have a fever, be off food and be slow and sluggish, as well as there being local signs in the milk and udder.

 Treatment: local and systemic treatment of a suitable antibiotic and pain relief treatment is necessary for at least 3 days.

Subclinical mastitis:

This is a mastitis form which happens during the lactation period but does not give any general signs of sickness in the animal, the milk may or may not look different and even the udder itself may show no obvious signs. The major change will be in the increase of defender cells in the milk (measured as somatic cell count in dairy herds). These types of infections are basically a standoff between the cows defences (cells) and the bacteria struggling to get the upper hand. Sometimes the body wins and the infection will be cleared from the udder, sometimes the bacteria win and the infection will become chronic or even acute depending on the species of bacteria.

Treatment: suitable antibiotic treatment and if possible cure during the dry period can be attempted.

**Rules of thumb in treating mastitis:**

-Milk out as often and as completely as possible, this will greatly reduce the number of bacteria that you are trying to kill. 2x a day minimum!

-Always use local udder tubes and only if the cow itself is ill ADD injectable antibiotics.

-Anti inflammation and pain relief drugs are always a good idea since a lot of the damage and discomfort is from tissue swelling.

-Always treat for at least 3 days with antibiotics even if the animal seems fine after 1 day. There is no point in killing 99% and then leaving that one percent to start things back up again and/or become resistant.

-Prevention is always better than cure, clean pens and clean udders will prevent a lot of problems concerning mastitis. Keep in mind that at least 2/3 of the mastitis cases within the first 100 days of lactation actually were infected during the dry period.

Contact your vet for more information on prevention and treatment.