NADIS Cattle Disease Focus - Malignant Catarrh

Malignant catarrhal fever or MCF is a disease which many farmers know very little about despite many farms having had at least one case. In the UK, MCF affects primarily cattle and deer. Sheep can carry the virus but do not develop disease.

What is MCF?

MCF is caused by a herpes virus, whose normal host appears to be the sheep. Infected sheep are otherwise completely normal, but infected cattle get a severe illness that often results in death.

However, despite the severity of the illness and its infectious cause, MCF is sporadic with usually only one or two animals affected in a herd. The cow appears to be a dead-end host for the virus and infection does not usually spread between cattle

Clinical Signs

The most commonly reported signs are related to the head (known as the head-and-eye form of the disease):

o Reddening of the whites of the eyes
o Cloudiness of the eye, starting at the edge and growing inwards. This leads to blindness
o Reddening of the lips, gums and muzzle
o Erosions of the lips and mouth
o Profuse nasal discharge, initially clear, but becoming thickened with pus
o Excess salivation

Other signs can include nervous tremors, difficulty breathing, blood-stained diarrhoea and lameness.

In the later stages nervous signs become more prominent and include head pressing, leg weakness and incoordination, and convulsions.
Recovery of affected animals is rare, but better tests have shown that cattle can recover (although they remain persistently infected with the MCF virus). Cattle can also produce antibodies to the virus without showing obvious signs of infection.

Diagnosis

• Clinical signs are very helpful, particularly if only one animal is affected
• Post mortem investigation is very useful as the disease produces very specific changes, particularly in tissues put under the microscope
• Several tests for the virus and antibodies have now been developed. Finding the virus confirms

the diagnosis, finding antibodies doesn't as animals can produce antibodies without developing
the disease

Treatment
Supportive treatment (such as antibiotics, fluids and good nursing) has been helpful in some cases, but in most cases death is the most likely outcome.

Prevention

In the UK contact with sheep is the primary way in which cattle get MCF. Thus restricting contact with sheep can reduce the risk of MCF. It is often suggested that sheep at lambing time pose the greatest risk, but there is no evidence that sheep do excrete more virus around lambing, so to control MCF you need to prevent contact with sheep throughout the whole of the year.
Another strain of MCF is associated with wildebeest; this is unlikely to be a problem on most UK farms unless exotic species are kept.

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