BLEEDING CALF SYNDROME

BOVINE NEONATAL PANCYTOPAENIA

WHAT IS IT?

- New condition of calves first reported in Germany and Belgium in 2007
- Since then, has also been reported in other countries in mainland Europe
- Cases first diagnosed in the UK in spring 2009
- Approximately 100 UK farms have reported cases so far

SYMPTOMS

- Affected calves are all under 4 weeks old (usually 2-3 weeks of age)
- Both dairy and beef calves have been affected.
- The numbers of affected calves per herd is low, typically being less than 5%.
- Classically calves have signs of external bleeding from the nose, mouth, rectum, injection sites or ear tagging.
- Calves may also develop internal bleeding, as well as bruising of the eyes and gums. These calves may not have any obvious signs of bleeding, but may be collapsed with pale membranes and laboured breathing. Such cases may present as unexplained sudden deaths.
- Calves often have a persistent fever over 40ºC (104ºF).
- They are more prone to developing other infections such as diarrhoea, pneumonia or navel ill.
- Cases are invariably fatal, with very few affected calves recovering despite intensive treatment.
- Mothers of affected calves remain perfectly healthy

POSSIBLE CAUSES

- The bleeding is the result of a severe lack of platelets (termed thrombocytopaenia) which means that the blood is unable to clot.
- This lack of platelets is caused by an almost complete destruction of the calf's bone marrow.
- This destruction of the bone marrow also leads to a lack of red and white blood cells, which means that affected calves become anaemic and susceptible to other infections.
- It is currently thought that the bone marrow destruction may be caused by antibodies produced in the cows' colostrum, which then target the cells in the calf's bone marrow after the calf suckles. In affected herds, preliminary experiments to prevent calves suckling their mother's colostrum and feeding them colostrum obtained from an unaffected herd resulted in disease-free calves.
- Circumstantial evidence from Europe has linked the use of a specific vaccine with affected cases, and the drug company have voluntarily withdrawn this vaccine from the EU pending further investigations. Note that no other vaccines apart from this one have been implicated, and you should continue to vaccinate against major infectious diseases as advised by your veterinary surgeon.
- There is no evidence that an infectious disease is involved.
- There is no evidence of any risk to human health from this condition.

TREATMENT AND PREVENTION

- There is no available treatment for this condition, and most cases are invariably fatal.
- Supportive treatments such as antimicrobials, clotting agents and blood transfusions have not generally been successful.
- Reports from Europe suggest that cows that have had an affected calf are more likely to produce affected calves in subsequent years, in which case substituting colostrum from unaffected cows within the same herd may be worthwhile to prevent disease. If you are thinking of doing this, watch out for the risk of spreading Johne's disease. Remember that it is vital that calves are fed sufficient colostrum to prevent other diseases such as diarrhoea and joint ill.

If you have any suspect cases, you should report them to your vet as soon as possible.

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