



NEOSPOORA

INTRODUCTION

Neospora is one of the most recently identified causes of abortion, however recent studies suggest that neosporosis causes over 10% of all abortions in UK cattle. There is still a lot we need to find out about this disease in order to control it effectively.

Neosporosis is caused by infection with the protozoa *Neospora caninum* and has been found worldwide in many species other than cattle. Currently abortion due to Neospora has been shown in cattle, sheep and canines. (Dogs and foxes are the definitive hosts where the parasite reproduces and cattle and sheep are the intermediate hosts.) The parasite is carried by dogs and foxes and is spread to cattle in their faeces. Cows are infected for life and are three times more likely to abort. Surviving calves from infected dams are also permanently infected.

CLINICAL SIGNS

- Abortion after 3 months gestation
- Still births or premature calves
- Occasionally, calves will have brain disease at birth
- No clinical signs in dam
- Repeat abortions possible in the same cow subsequent years
- Heifer calves born live to infected dams are likely to abort when they join the breeding herd



DIAGNOSIS

- Post mortem examination of aborted calves confirms diagnosis
- Blood testing cows that have aborted may show antibodies to neospora, however this doesn't confirm that neospora was the cause of abortion. Cows can be infected with neospora (blood test positive), but may have aborted due to one of the more common causes of abortion such as BVD or leptospirosis.



TREATMENT

- No treatment of any proven benefit
- No vaccination available

PREVENTION

Dogs are potentially a source of disease. So prevention must include:

- Keeping cattle food and water away from dog and fox faeces.
- High hygiene standards at calving. Dispose of placental membranes and aborted or dead calves before dogs can get them

However, transmission from mother to calf (known as vertical transmission) is far more important than the link with dogs. Over 90% of calves born to infected mothers (positive Neospora blood test) will have been infected in the uterus. The importance of transmission between adult cattle is less clear.

Methods to try to eliminate Neospora include:

- 1. Identify infected cattle and cull them:** All cattle with antibodies to Neospora are sources of infection to their calves, have a significantly increased risk of abortion and on average produce less milk than antibody negative cows.
- 2. Positive cows should be bulled with a beef bull** if culling is not economically viable.
- 3. Select only blood test negative cattle for breeding.** Heifers with antibodies should be sold for meat and not kept as replacements.



KEY POINTS

Neospora is a common cause of abortion in cattle

Repeat abortions in the same cow is possible

No vaccination or treatment available

Dogs and foxes are definitive hosts (are required to complete the lifecycle)

Positive cows should only be bulled with a beef bull

For further information,
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