

PCR-Based Detection of *Neospora caninum* in Newborn Calves : Galactogenic Transmission as A Possible Route of Infection

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Neospora caninum belongs to the cyst-forming coccidia and is well known as a major cause of abortion in cattle in many parts of the world. The life cycle of the parasite is still not completely elucidated. A known route of infection is congenital and also dogs showed to be definitive hosts during experimental infection.

In this study four neonatal calves were inoculated with colostrum containing bovine *N. caninum* tachyzoites; two of the calves were dosed via stomach tube and two by feeding bottle. While the latter two calves showed transient fever, blood-stained diarrhoea and significant *N. caninum* antibody levels, the two calves inoculated by stomach

tube showed no clinical signs and remained seronegative throughout the study. At post mortem examinations no pathological lesions were observed, parasites were not detectable by immunohistochemistry and they could not be reisolated in cell culture from the brains of the seropositive calves, however, *N. caninum* DNA was demonstrated by PCR.

These data not only suggest that oral infection of *N. caninum* via colostrum is a possible route of vertical transmission in newborn calves but also emphasizes the virtue of PCR as compared to classical identification methods.