

PREGNANCY LOSS IN A MARE

VETERINARY PATHOLOGY

Breeze's story

The owner of Breeze, one of a group of 80 broodmares at a studfarm, found Breeze in her stable standing over her dead foal. The foal was still enclosed within its placental membranes on the stable floor. The mare had been well and shown no impending signs of delivery the evening before.

Breeze was checked by her veterinary surgeon and moved into an isolation stable, and the foal was submitted to the laboratory for post-mortem examination. While externally the foal appeared normal, post-mortem examination showed body cavity effusions and abnormalities in the lungs and liver. Tissue samples collected for qPCR were tested and, by the afternoon, equine Herpesviral-1 (EHV-1) infection was identified. Histopathology and immunohistochemical staining of the lesions confirmed the diagnosis and further classified the pattern of infection.

Movement restrictions were placed on the studfarm as part of a voluntary code of practice within the horse breeding industry, and mares that had been in direct contact with Breeze were identified and isolated from other mares. Disinfection and other biosecurity measures were implemented and, in this instance, no further pregnancy losses occurred.

Fighting viruses in horses

EHV-1 and EHV-4 are alpha-Herpesviruses that commonly cause respiratory infection in horses and can cause pregnancy loss in mares. EHV-1 also has the potential to cause serious neurological infections in adult horses, more common with certain strains of the virus.

Historically, EHV 'abortion storms' were common, with some outbreaks causing up to 75% of mares on a studfarm to suffer pregnancy loss.

The risk of disease outbreaks has been reduced since the introduction of vaccination and EHV infection now accounts for less than 10% of all pregnancy losses. However, the vaccine is not always fully effective and cases still occur even in well-vaccinated herds. Laboratory testing plays a vital role in confirming the cause of pregnancy loss rapidly, so that appropriate biosecurity measures are implemented. Post-mortem examination is also viewed as a useful means of screening for introduction of non-endemic infectious disease to the UK and surveying for novel disease. Other causes of pregnancy loss in the mare – such as umbilical cord torsion – have interesting comparative aspects cross-species.

*Dr Alastair Foote
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"We rely on rapid pathology testing to determine the cause of pregnancy loss in mares, so that infectious causes can be identified and appropriate disease control measures put in place."

**Ian Cameron, Veterinary Surgeon,
Rosssdales LLP, Newmarket**



A broodmare and foal at stud (photo courtesy of Professor Sidney Ricketts FRCPath)