

# Equine Veterinary Journal Ltd

## Editorial

### Equine Viral Arteritis

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#### **Sword of Damocles or Storm in a Teacup?**

#### **Events in 2001 reinforce the benefits of following the H B L B Code of Practice.**

Equine Viral Arteritis (EVA), a disease associated with abortion in pregnant mares, neonatal death, respiratory disease and long term infections in stallions has been of concern to British horse owners and veterinary surgeons for some time. This concern was heightened in 1993 after the first recorded outbreak of the disease in the UK (Wood *et. al.* 1995). The outbreak was centred on one studfarm where mares aborted, a neonatal foal died, severe respiratory disease was observed and a valuable stallion became a long-term shedder of the virus.

This severe outbreak, which was fully controlled, confirmed some of our worst fears concerning the likely impact of the disease on the British horse population. It also raised fears about the likely impact of European legislation, which was introduced in 1993 and which effectively allowed the importation of healthy shedding stallions into the UK from other European states. **One very positive impact of the outbreak was that it raised awareness of the disease across the whole equine industry** and resulted in far wider implementation of the Common Code of Practice for EVA, published annually by the Horserace Betting Levy Board.

In fact, the shedding stallion that introduced the infection in the 1993 outbreak had been imported in 1992 from Eastern Europe without having complied with proper legal safeguards which should, if applied properly, have ensured the animal's exclusion. Contrary to our fears then, no further clinical outbreaks of EVA have been diagnosed in Britain, although a number of shedding stallions have been detected and it is highly likely that a number of infected semen batches used in artificial insemination have been used (Newton *et. al.* 1999; unpublished).

**This leads one to ask whether we were wrong to be so concerned about the disease in 1993 and why reality has been so different to our fears of it back at that time.**

Prior to 1993, the importation of possibly EAV infected horses into the UK had been prevented by stringent regulations dictated by our Ministry of Agriculture. We knew from extensive sero-surveys (e.g. Chirnside 1992) that the British equine population had no experience of the infection, other than a few animals that had a history of overseas travel. Reports from outbreaks of EVA from overseas (e.g. McCollum and Swerczek 1978), suggested that the disease could spread in a highly contagious manner in a susceptible population and it was feared that this would happen should the virus arrive in the UK.

**In fact, EAV is not highly contagious and tends only to spread relatively slowly by the respiratory route.** It often does not infect all animals in an exposed group, as reported from the outbreak at **Arlington racetrack in the USA in 1993** (Scollay 1993), also as observed in the UK outbreak in the same year (Wood *et. al.* 1995). This was reflected by the relative ease with which the 1993 outbreak in the UK was controlled and the discovery that, unbeknown to anyone, British horses had been experiencing EAV infections for some years prior to 1993 (Newton *et. al.* 1999).

**So what is all the fuss about? Why don't we just ignore the infection and just deal with its worst effects only when they occur?** My answer to both of these questions lies directly in our experience over the last few years and relates to the fact

that EVA is a disease that we do not need and that preventive measures are cost effective and, importantly, are highly practicable.

### Outbreaks on studfarms in 2000

British horse breeders, particularly stallion managers in the Thoroughbred sector, have been following the Common Code of Practice for EVA since the 1993 outbreak. Not a single one has had any problem with the disease since then. In contrast, a situation arose earlier this year on some studfarms in Normandy where EAV had spread extensively around the stud prior to any diagnosis being made. In fact, the alarm was first raised by British mare owners who realised (through following recommendations in the Code) that their mares had become infected when away at stud. This outbreak involved subclinical respiratory spread of infection and resulted in three top class stallions becoming infected. One of the stallions and another teaser became semen shedders of the virus and **French breeders have now developed their own, highly stringent Code of Practice for the 2001** covering season which will ensure no repetition of the events in 2000.

In the summer of 2000, some of the other worst effects of the disease were seen on a Belgian Arab horse stud, where an abortion storm resulting in the loss of 8 or 9 foals occurred.

**How the infection in either the French or the Belgian outbreaks was first introduced is not currently clear, but its effects were painfully obvious.**

### Outbreaks associated with the use of infected semen

Although there are no European regulations that prevent the intra-community movement of shedding stallions, there are clear laws that govern the use of and trade in fresh and frozen semen, a potent source of the infection (Timoney & McCollum 1993). However, these all rely on the ability of laboratories to detect the presence of virus in semen. These investigations can be notoriously difficult to perform adequately (e.g. Edwards *et. al.* 1999) and we have in the past investigated or been informed of clusters of seropositive mares that shared only one common factor, namely that they had been inseminated with particular batches of semen. European laboratories had certified these batches, but the outcome suggested that something had gone wrong somewhere in the process. **Where possible, horse owners should ensure that all testing for EVA is done in laboratories with substantial experience with this virus.**

The international movement of horses and semen is ever increasing and our horses are being exposed to new populations with different health status all the time. The situation that faced European breeders is becoming more and more likely to occur on a regular basis to those who hide their heads in the sand and say that there is no problem.

**EVA is no "Sword of Damocles", but neither is it a "Storm in a Teacup".** This is a serious disease that can be controlled through following simple measures. More than this, there are clear recommendations laid down, that have stood the test of time (HBLB 1999). Let us all do all we can to ensure that everyone follows the recommendations for their horses and their own good.

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