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## **EHV-1 neurological outbreak during a show-jumping competition: a clinical and epidemiological study**

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### ► To cite this version:

Anne Couroucé, C. Tessier, R. Pomares, J. Thévenot, Christel Marcillaud Pitel, et al.. EHV-1 neurological outbreak during a show-jumping competition: a clinical and epidemiological study. 11th International Equine Infectious Diseases Conference, Sep 2021, Online, France. pp.52-52, 10.1111/evj.75\_13495 . hal-03374585

**HAL Id: hal-03374585**

**<https://hal-normandie-univ.archives-ouvertes.fr/hal-03374585>**

Submitted on 13 Oct 2021

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previously vaccinated with the Onderstepoort live attenuated vaccine responded rapidly and strongly to the production of protective antibodies. No replicating AHSV or viral RNA was detected after vaccination.

**Main limitations:** No AHSV challenge infection was carried out.

**Conclusions:** Inactivated AHSV vaccines containing all nine serotypes are safe, with no risk of reversion to virulence and are immunogenic. Further investigation is therefore warranted.

**Ethical animal research:** Research activities at CVRL Dubai are monitored by an Ethics Committee consisting of veterinarians from the CVRL as well as from the UAE Ministry of Environment and Climate Change (MOCCA).

**Informed consent:** Owners gave consent for animals' inclusion.

**Competing interests:** None declared.

**Source of funding:** Kisima Farm, Kenya, which belongs to one of the co-authors (SS) and CVRL.

## Equine Herpesvirus-1 and -4

### Oral Presentations

#### 75 | EHV-1 neurological outbreak during a show-jumping competition: a clinical and epidemiological study

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**Background:** A total of 753 horses were involved in the CES Valencia (Spain) Spring Tour 2021. Due to an EHV-1 outbreak, the competition was cancelled and the site was locked down with 157 horses from 15 different nations staying on site.

**Objectives:** Describe epidemiological, clinical, diagnostic, treatment and outcome data on a population of horses staying in Valencia.

**Study design:** Retrospective clinical study.

**Methods:** From the 157 horses on site, 60 horses were followed (32 mares, 24 geldings and 4 stallions) and 67 were sampled with nasopharyngeal swabs sent to Labeo.

**Results:** From the 60 horses, 10 showed no signs (no fever, no neurological signs). A total of 50 horses showed fever between 38.6 and 41.2°C which lasted for 4.0±2.1 days. Of these, 60% showed no further signs and 40% showed neurological signs with 8 horses hospitalised, of which 2 died. Neurological signs included either ataxia, urinary problems with bladder atony and lack of tail tone. For the mares, 75% showed fever and of these 50% showed neurological

signs. For the geldings, 91.7% showed fever and of these 31.8% showed neurological signs. For the 4 stallions, all showed fever and one showed neurological signs. The mean duration between the last day of fever and the beginning of neurological signs was 1.05±1.32 days. There were 33 vaccinated horses (31 had a booster less than 6 months prior to the show): 96.9% showed fever of which 45.4% showed neurological signs. Among the 27 non-vaccinated horses, 66.7% showed fever of which 27.8% showed neurological signs. EHV-1 was detected by qPCR, genotyped as A2254 (ORF30) and isolated on cell culture.

**Main limitations:** Not all horses on site were included leading to potential selection bias.

**Conclusions:** These data were collected in a real outbreak situation and give interesting information about clinical findings in relation with epidemiological data such as sex or vaccination status for example.

**Ethical animal research:** This study was performed during an EHV-1 outbreak in a showjumping competition. The data obtained from the riders and the samples taken from the horses were done as normal clinical conditions.

**Informed consent:** Yes.

**Competing interests:** None declared.

**Source of funding:** French Equestrian Federation, Labeo Frank Duncombe, ONIRIS.

#### 76 | Major Equine Herpesvirus - 1 epizootic in Europe: Identification of a marker for epidemiological surveillance

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**Background:** Equine herpesvirus type-1 (EHV-1) is an important threat to the equine industry, as illustrated by the ongoing outbreak of neurological disease that was initially reported during a large equestrian event in Valencia, Spain in 2021. Horses returning from this event to their training yards have contributed to the spread of the virus to nine other European countries and to Qatar.

**Objectives:** To design a "tracking" marker in order to specifically follow the dissemination of the Valencia strain, in EHV-1 infected horses with no known epidemiological link with the Valencia outbreak.