VOORJAARSdagen
European Veterinary Conference

2007 - AMSTERDAM

PROGRAMME AND SCIENTIFIC PROCEEDINGS
Tetanus in the horse

Gaby van Galen
DVM, resident ECEIM and Helene Amory, DVM, PhD, DECEIM, Equine hospital, Faculty of veterinary medicine, University Liege, Belgium, gvangalen@ulg.ac.be

Tetanus is a neurological disease well known by many equine practitioners. However, only few retrospective studies reported the clinical features of tetanus in the horse. This study was performed as a descriptive study to confirm the existing practical knowledge and to evaluate the value of clinical parameters as prognostic predictors in cases of equine tetanus. Thirty-one cases of tetanus admitted to the equine teaching hospital of Liege between 1991 and 2006 were included in this study. Since no other means exist to diagnose tetanus, the diagnosis was based on history and clinical signs. The relationship between clinical parameters and the outcome were studied using an ANOVA (continuous data) and a Fisher's test (discrete data).

The horses were 3.5 months to 18 years of age, but most of them (84%) were 5 years old or younger. No sex or breed predisposition appeared to be present. Of 13 horses, no vaccination status was known, and none of the others was vaccinated properly. Two horses were not vaccinated but received an anti tetanus serum after castration; nevertheless they showed clinical signs of tetanus within 9 days and 2 months after their castration together with the presence of purulent castration wounds. The overall mortality rate was 68% (21/31), and older horses were significantly more likely to survive. A simultaneous infectious process was identified, the time between the occurrence of this process and the first symptoms ranged from 2 days to 2 months. The heart and respiratory rates on admission and the development of dysphagia during hospitalization were not significantly different in non-surviving (NS) and in surviving (S) horses. On the contrary, the development of dyspnea, recumbency, and the combination of dysphagia, dyspnea and recumbency were significantly more frequently observed in NS than in S horses (86% versus 30%, P<0.01; 89% versus 10%, P<0.0001, and 56% versus 0% P<0.01, respectively). Anti tetanus serum was not significantly more frequently administrated directly after apparition of the signs suggestive of tetanus in the S than in the NS group. The horses in the S group were not referred significantly earlier to the clinic after apparition of tetanus than the horses in the NS group. All NS horses died within 8 days after the first signs appeared. Survivors fully recovered after 16-32 days of hospitalization. Complications during hospitalization consisted of septic arthritis, peripheral edema, laminitis, diarrhea, ischial fracture, colon impaction, hyperlipemia and aspiration pneumonia. On necropsy of the NS horses no specific lesions were found, however some horses showed lung edema (4) and lesions due to gastrointestinal parasites (6, all of them young horses).

As a conclusion, this study suggests that the development of dyspnea, recumbency, and the combination of dysphagia, dyspnea and recumbency can be considered as parameters suggestive of a poor prognosis in horses suffering from tetanus.