



MULTIPULSE TRANSCRANIAL ELECTRICAL STIMULATION (TES) TO DIAGNOSE SPINAL CORD INJURY IN HORSES

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Background: There is need for additional sensitive diagnostic techniques to assess spinal cord injury in horses.

Objectives: To compare the outcomes of motor latency times (MLTs) from transcranial electrical stimulation (TES) with myelographic and post-mortem findings in horses suspected of suffering from cervical myelopathy.

Study design: Cross-sectional observations.

Methods: Eight horses, age range: 0.54–11.7 years, mean height at withers: 156.4 (147–163) cm and with mean ataxia grade: 3.25 (2–4 out of 5) were studied. TES was performed as previously described [1]. MLTs were recorded bilaterally at the extensor carpi radialis (ECR) and tibialis cranialis (TC) muscles. Myelography was performed under general anaesthesia by contrast injection at atlanto-occipital level with the head respectively in flexed, extended and neutral position to identify reduction in dural diameter. Post-mortem histopathological examination was performed between C1 and T1 of the spinal cord. Statistical comparisons were made between these clinical cases and previously published healthy horses [1].

Results: All MLTs were significantly prolonged ($P < 0.001$) compared with published data from normal horses with mean values of 33.2 (28.2–41.7) ms (left, $n = 8$) and 32.7 (27.8–41.2) ms (right, $n = 8$) for the ECR and for the TC: 80.3 (53.0–110) ms (left, $n = 8$) and 78.2 (58.0–95.0) ms (right, $n = 7$). Six horses had pronounced reduction in dural diameter at various segmental levels. However, there were histopathological abnormalities in all cases.

Main limitations: Small sample size, lack of observer masking and historical controls.

Conclusions: TES detects myelopathy even in cases with normal myelograms.

Ethical animal research: Owners gave informed consent for their horses' inclusion in the study. **Sources of funding:** JS Center and Wolvega Equine Clinic. **Competing interests:** None declared.

Reference: [1] Journée, S.L., Journée, H.L., Bruijn, C.M., de and Delesalle, C.J.C. (2015) Design and optimization of a novel method for assessment of the motor function of the spinal cord by multipulse transcranial electrical stimulation in horses. *J. Equine Vet Sci*, **35**, 793–800.

CLINICAL EQUINE NUTRITION IN THE POST-OPERATIVE COLIC: SURVEY OF DIPLOMATES OF THE AMERICAN COLLEGES OF VETERINARY INTERNAL MEDICINE (ACVIM) AND VETERINARY SURGEONS (ACVS), AND THE EUROPEAN COLLEGES OF EQUINE INTERNAL MEDICINE (ECEIM) AND VETERINARY SURGEONS (ECVS)

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Background: Evidence is lacking concerning optimal post-operative colic nutrition with regards to when to feed, the amount and frequency.

Objectives: To report the different approaches favoured by European and American specialists to re-feeding adult horses following surgical treatment of common intestinal lesions, assuming an uncomplicated recovery.

Study design: Cross-sectional survey.

Methods: Electronic invitations were sent to 1430 Large Animal specialists, including ECVS, ACVS, ECEIM and ACVIM colleges, allowing access to complete the online survey.

Results: The response rate was 12.6% (180/1430) including partial respondent data. Responses for each multiple-choice question were between 123 and 178. The following results are expressed as the percentage of the total number of responses. Respondents reported different large intestinal displacements to be offered free choice water (63–65%) and to introduce water at < 3 h (55–63%), whereas various small intestinal strangulating lesions were reintroduced < 2 L water (64–74%) and ≥ 12 h but < 24 h (28–34%). Large colon displacements were offered feed as early as < 3 h (16%) but the majority were offered feed ≥ 6 h but < 12 h (35–36%). Small intestinal strangulating lesions and small colon lesions were offered feed ≥ 24 h but < 48 h (34–42%). Following various types of small intestinal, small colon or caecal lesions, horses were re-introduced feed with handfuls (79–93%) and initially grass (41–54%). Large colon displacements were mostly given handfuls (49–50%) of forage initially, but compared with other lesions, a greater number of respondents would offer larger quantities such as a small bucket (35–37%) and predominantly offered hay (50–51%).

Main limitations: Low response rate. This study did not take into account common complications that may occur post-operatively that may alter clinical approach.

Conclusions: The post-operative colic nutrition survey is the first to describe current clinical practice. Further research is required to investigate nutritional strategies in post-operative colic patients.

Ethical animal research: Research ethics committee oversight not stated. **Sources of funding:** None. **Competing interests:** None declared.