

A study on inter-observer reliability of castration pain assessment in horses

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Pain evaluation is a key issue for equine welfare and it is often cause of concern because it is difficult to determine its intensity and duration. This is essential when different people are looking after the animals and they need to decide when or not giving analgesics to guarantee the welfare of the subject. The most widely used technique to determine pain in horses is identifying pain related behaviors.

The aim of this study was to determine inter-observer reliability of two different assessors evaluating pain related behaviors in horses undergoing castration.

8 stallions of different breed, aged between 2 and 4 years, were included in the study. All the subjects underwent routine castration (closed technique in general anesthesia). The subjects were placed in an observation box for 5 days and their behavior was recorded for 15 minutes before the surgery and 4, 8, 16, 24 and 40 hours after intervention. Two blind observers, using a given ethogram of horse pain related behaviors modified from literature (for a review Ashley, 2005), analyzed horses behavior at each interval.

Descriptive statistics and K Kendall test were performed.

Observers agreed significantly assessing agitation, reluctance to move, kicking the abdomen, lethargy, rolling, attention and curiosity ($P < 0.05$), however agreement was low for head movements, stretching, flank watching, lowered head carriage, weight shifting, abnormal movement, fixed stare.

Our results show that assessing pain in horses should be a cause of concern, because different pain related behaviors are difficult to identify and to have agreement between two observers. Training of care takers of horses on identification of specific behaviors is needed to standardize pain assessment.

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