

## **Clinical assessment and grading of back pain in horses**

### **ABSTRACT**

**Background:** The clinical presentation of horses with back pain (BP) vary considerably with most horse's willingness to take part in athletic or riding purpose becoming impossible. However, there are some clinical features that are directly responsible for the loss or failure of performance. **Objectives:** To investigate the clinical features of the thoracolumbar region associated with BP in horses and to use some of the clinical features to classify equine BP. **Methods:** Twenty-four horses comprised of 14 with BP and 10 apparently healthy horses were assessed for clinical abnormality that best differentiate BP from normal horses. The horses were then graded (0–5) using the degree of pain response, muscular hypertonicity, thoracolumbar joint stiffness and overall physical dysfunction of the horse. **Results:** The common clinical features that significantly differentiate horses with BP from non-BP were longissimus dorsi spasm at palpation (78.6%), paravertebral muscle stiffness (64.3%), resist lateral bending (64.3%), and poor hindlimb impulsion (85.7%). There were significantly ( $p < 0.05$ ) higher scores for pain response to palpation, muscular hypertonicity, thoracolumbar joint stiffness and physical dysfunction among horses with BP in relation to non-BP. A significant relationship exists between all the graded abnormalities. Based on the cumulative score, horses with BP were categorized into mild, mild-moderate, moderate and severe cases. **Conclusions:** BP in horse can be differentiated by severity of pain response to back palpation, back muscle hypertonicity, thoracolumbar joint stiffness, physical dysfunctions and their cumulative grading score is useful in the assessment and categorization of BP in horses.

**Keyword:** Back pain; Spinal abnormalities; Clinical grading; Horses