

INVESTIGATING THE ANXIOLYTIC EFFECTS OF PREGABALIN IN HOSPITALIZED HORSES

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Background: Pregabalin decreases anxiety in small animals and is used as an analgesic in equine patients, but no studies have evaluated its anxiolytic effects in horses.

Hypothesis: Horses receiving pregabalin will show significantly lower stress indices during transfer to hospital, admission, and hospitalization than horses receiving placebo.

Objectives: Investigate whether pregabalin administration before admission reduces stress in equine patients during transport, admission, and initial hospitalization.

Methods: Fourteen horses were randomly assigned to receive pregabalin 4mg/kg orally or a placebo 2 hours prior to admission. Heart rate variability (HRV) indices were measured before treatment, before transfer, during transfer, and after admission. Salivary cortisol and behavior scores were obtained at baseline and after admission. HRV was analyzed using repeated-measures ANOVA. A Mann-Whitney U test was used for behavior scores, with significance set at $p < 0.05$.

Results: A treatment-by-time interaction was detected for heart rate (HR) ($p=0.045$). While HR did not differ between groups ($p=0.446$), placebo-treated horses exhibited a greater increase in HR than the pregabalin-treated horses during transfer compared to baseline ($p=0.018$) and pretransfer HR ($p=0.017$). Placebo-treated horses had a greater decrease in HR on admission compared to transfer ($p=0.001$). There was a significant effect of time on the R-R interval ($p=0.013$) for both groups. There was no difference in behavior scores between groups at admission ($p=0.88$) or after 4 hours of hospitalization ($p=0.47$).

Conclusion: Pregabalin administration prior to hospital admission may decrease stress indices in horses. Salivary cortisol and longer hospitalization timepoint analysis are pending and may influence conclusions.

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