

Reducing levels of stress experienced by the horse might reduce the prevalence of the stereotypic behaviour weaving

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Introduction

Stereotypic behaviours are defined by Mason (2006) as frustration-based repetitive behaviour with the aim of coping with a stressful situation. Reducing the levels of stress to the horse should reduce the stereotypic behaviour. Previous work by Karson *et al.*, (1980) has shown that blink rates alter according to dopamine production by the central nervous system, therefore measuring blink rate is a good way to assess stress levels in stabled horses. This study aimed to see if the introduction of a stable lick (Likit®) could reduce stress in 8 horses with the established stereotypic behaviour of weaving.

Materials and Methods

Eight horses (Population of mixed breed, height, sex, aged between 6 to 19 years.) were observed for an hour before feeding and an hour after feeding for 6 days. On day 1 a stable lick (Likit®) was introduced and on day 4 the lick was removed. Blink rate was counted for 30 minutes, 2 hours before feeding for the 6 days of the study. This was done with the horse tied up and counted by a human. The weaving rate was recorded using a camera to avoid human contact. 1 weave was counted as the sway of the head in one direction. The data was analysed using a Wilcoxon matched paired t-test and correlation was used to determine if a relationship existed between blink rate and weaving rate.

Results

The mean weaving rate of the horses was reduced from 236 to 29 weaves an hour ($P < 0.01$). The mean blink rate of the horses was also reduced from 26 to 17 blinks per minute ($P < 0.01$). A significant relationship ($R^2 0.67$, $P < 0.05$) was found between blink rate and weaving rate without Likit® (Figure 1) whereas no relationship was found when Likit® was present.

Tables and Figures

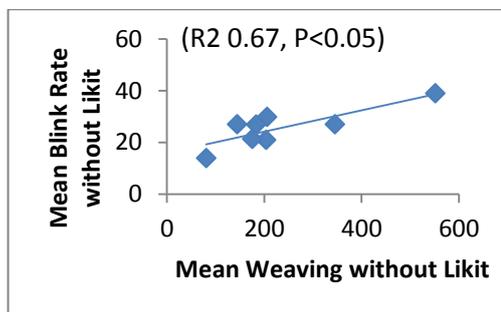


Figure 1 Linear regression between mean weaving rate and blink rate without the stable lick ($R^2 0.67$, $P < 0.05$)

Discussion and Conclusions

The results suggest that the presence of a stable lick significantly reduced weaving rate and blink rate in stabled stereotypic horses. The positive correlation reported between blink rate and weaving rate in horses indicates that weaving may increase dopamine production and is thus a coping mechanism for stress in stabled horses. However, when provided with a lick there was no relationship between weaving frequency and blink rates. These results show that providing a stabled horse with a lick will reduce its desire to weave and thus help it to cope with the stress it is experiencing without having to resort to a dopamine-producing activity such as weaving.

Acknowledgments Likit®

REFERENCES

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