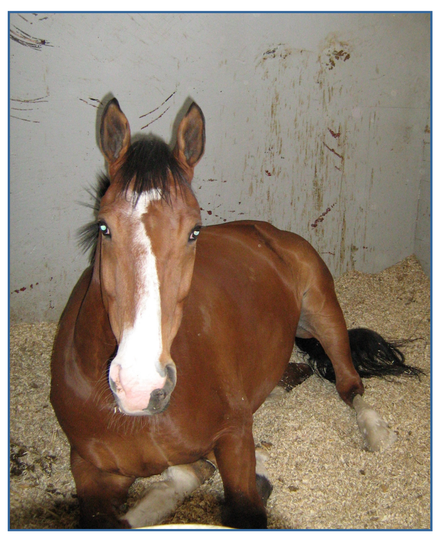

THE BEHAVIOUR OF HORSES KEPT IN LOOSE BOXES AND TIE STALLS

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INTRODUCTION

In Sweden there are horses still kept in tie stalls. However, it is not clearly documented how that affects their behaviour

AIM

The aim of this study was to compare lying behaviour in tie stalls with that in loose boxes

Loose box 10.2m^2 (3.5 x 2.9 m)

RESULTS

- The interval registrations revealed an effect of stable in % lying behaviour. The horses lied down more in the boxes 12.7 % vs. 10.1 % of observations ($p = 0.005$), but no differences in the other behaviours

- A detailed analysis of the continuously registered lying behaviour revealed that the horses lied down in more and shorter periods in the tie stalls than in the boxes ($p < 0.001$)

- In the box the horses performed a rolling movement immediately before getting up in 15 % of all episodes. This behaviour was only observed once in the tie stalls (chi^2 $p < 0.01$)

- Significant differences ($p < 0.001$) between horses were found in total lying time (74 - 215 min) and number of lying episodes per day (2.3 - 5.8)

Tie stalls, length 3.0 m, width 1.7 and 1.6 m

CONCLUSIONS

- Compared to loose boxes, tie stalls did influence the total lying time, number of lying episodes and the getting up behaviour

- Tie stalls can therefore be said to disturb the lying behaviour of the horse

MATERIAL AND METHODS

Horses and design

- 8 Swedish Warmblood, 4 geldings and 4 mares, age 5-13 years, height 157-170 cm, weight 525-625 kg

- Each horse were videotaped during 3 days in each stable type

- 4 of the horses were first observed in a loose box, the other 4 in a tie stall in a cross-over design

- They were in the same system for at least 4 days before taping

- All horses were used to both stable types before the experiment

Registrations and analyses

- Eating, standing alert, standing passive and lying were manually registered every 5th min from the tapes and expressed in % of total observations

- When the horses not were in the stable was registered as ‘outside’ and included in total observations

- Lying was also continuously registered and measured in minutes

- Lying down and getting up episodes were counted

- Analysed in SAS, Proc GLM and chi^2 -

FUTURE STUDIES

The function of the rolling movements have to be studied more, to estimate the significance for the welfare of horses not being able to perform this behaviour