THE EFFECTS OF CHIROPRACTIC TREATMENT ON THE RANGE MOTION OF THE CARPUS AND TARSUS OF HORSES

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OBJECTIVE: To determine if (McTimoney) chiropractic treatment has an effect on the range of motion (ROM) of the carpus and tarsus of horses and joint ROM asymmetry.

OUTCOME: Positive support evidence that Chiropractic treatment of horses may increase joint ROM and improve joint ROM asymmetry.

INTRODUCTION

- Equine back problems are frequently reported as a contributory factor to poor performance.
- Clinical signs of back pain and spinal dysfunction can include asymmetric or restricted joint motion (Haussler, 2009).
- The use of complementary therapies has grown in popularity over the past decade for both humans and animals.

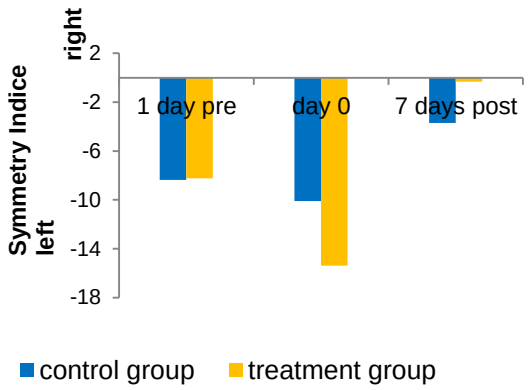
METHODOLOGY

- Hemispherical 35mm markers were applied to 7 anatomical landmarks of both forelimbs and hindlimbs of 10 sound horses.
- The treatment group (n=5) received (McTimoney) chiropractic treatment for the neck, back, pelvis and front feet.
- 2D kinematic data at walk and trot was collected for all horses, 1 day before treatment, day of treatment and 7 days post treatment.
- Kinematic data was analysed using Kinovea software measuring minimum and maximum joint angles, to calculate joint ROM.

RESULTS: POST TREATMENT

- Only the treatment group statistically increased carpus ROM (right side) at walk (+4 deg) (p=0.04) and trot (+5.2 deg) (p=0.02)
- For the treatment group, Carpus ROM asymmetry significantly changed from left towards neutral at walk (p=0.004) and trot (p=0.04).
- Tarsus ROM asymmetry in trot significantly changed from left towards neutral (p=0.02).
- There were no such significant effects for the control group.

Figure 1: Bar chart showing change in mean symmetry indices for carpus ROM at trot



CONCLUSIONS

- These results are promising and support the hypothesis that (McTimoney) chiropractic treatment may improve the symmetry of the tarsus and carpus ROM in horses.
- Further research is recommended to elucidate measurable effects and clinical relevance.

REFERENCES

Haussler, K.K. 2009. Journal of Equine Veterinary Science. 29 (12) pp. 849-869