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OBJECTIVE: Investigate the effect of McTimoney chiropractic treatment on the equine back and its effect on pressure beneath the saddle.

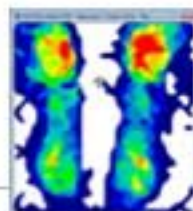
OUTCOME: Positive evidence that chiropractic treatment affects the horse's back and reduces mean pressure beneath the saddle.

INTRODUCTION

- Back problems in horses are recognised as an important factor in performance impairment.
- Saddle fit is considered a key factor in the pathogenesis of back problems (Harman 1995; de Cocq *et al* 2006) and has been shown to affect the forces acting on the horse's back (Meschan *et al* 2007).
- An integrative approach to solving back pain increasingly involves complementary therapies.
- Quantifiable scientific research of relationships between effects of McTimoney chiropractic treatment and saddle pressure would be useful.

METHODOLOGY

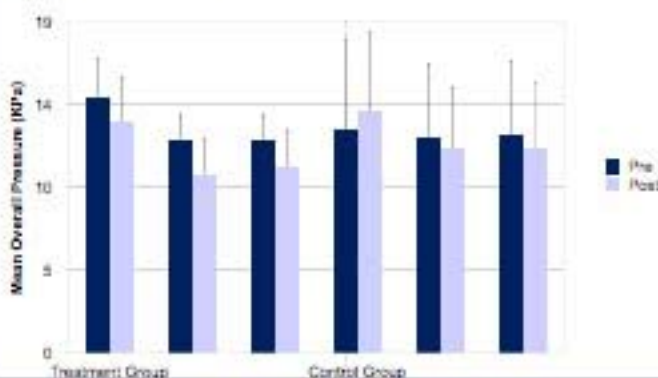
- 12 horses were ridden in their own saddles by the same rider along a straight 30m track. The treatment group(n=6) received McTimoney chiropractic treatment; the control group(n=6) received no treatment intervention.
- Mean overall pressure (MOP) and mean peak pressure (MPP) were measured at walk, rising trot and sitting trot using a TekScan CONFORMat pressure sensing system. Readings were taken before and one day after treatment/no intervention.
- Pressure differentials (KPa) were calculated by comparing pre and post pressure values.
- Statistical analysis: Levene's test, Repeated Measures General Linear Model, students t-test.



RESULTS:

- McTimoney chiropractic treatment significantly reduced MOP ($P < 0.001$) and MPP ($P < 0.001$) at all gaits.
- Differentials in MOP were greatest at rising trot(15%), sitting trot(12.5%) and then walk(9.5%).
- Differentials in MPP were greatest at r. trot(11.4%), s. trot(11.2%) then walk(8%).
- There was no significant difference in pre/post MOP ($P = 0.183$) or MPP ($P = 0.792$) for the control group.
- Pressure differentials were not affected by changing gait.

Figure 1: Pre and post MOP for treatment and control groups at all gaits (St.Dev error bars)



CONCLUSIONS

- The results provide positive evidence that McTimoney chiropractic treatment has an effect on the equine back and reduces mean pressure values beneath a saddle up to one day following treatment.
- Further research is required to understand the longer term effect of chiropractic treatment on saddle pressure and the effect on saddle fit.

REFERENCES

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