Issued: 3 October 2012

New study shows saddle slip may be early indicator of lameness

A new study has identified a significant link between hind limb lameness and saddle slip, showing consistent saddle slip in some horses with hind limb lameness, even when the lameness is fairly subtle and difficult to detect.

Saddle slip in sports horses is a well-recognised problem that can occur for a variety of reasons, including asymmetry in the shape of the horse's back, riders sitting crookedly and ill-fitting saddles. Sue Dyson, Head of Clinical Orthopaedics at the Centre for Equine Studies at the Animal Health Trust, had also observed that saddle slip may occur because of hind limb lameness. The intention of the study, therefore, was to find out more about the interrelationships between the horse, saddle and rider and to document the frequency of occurrence of saddle slip in horses with hind limb lameness compared with other horses.

The research was undertaken by Line Greve, Intern, and Sue Dyson, at the Animal Health Trust, Newmarket and was presented at the British Equine Veterinary Association (BEVA) Congress last month. It is thought to be the first study of its kind, and was supported by the Saddle Research Trust (SRT). The SRT is a charitable organisation, aiming to facilitate research and provide support as well as advice on the influence of the saddle on the welfare and performance of horses and riders.

The study assessed 128 horses of varying size, age and type. The degree of lameness of each horse was graded; back shape and symmetry were measured and saddles assessed for symmetry and fit. Each horse was ridden by at least two riders and rider straightness plus weight were recorded. The grade of saddle slip, whether it occurred with more than one rider, and whether saddle slip was influenced by the direction of movement or the diagonal on which the rider was sitting were also noted.

The saddle consistently slipped to one side in 54% of horses with hind limb lameness, compared with 4% of horses with fore limb lameness, 0% with back pain and/or sacroiliac joint region pain and 0% of non-lame horses. Diagnostic analgesia was subsequently used to abolish the hind limb lameness and this eliminated the saddle slip in 97% of cases.

Sue Dyson said: "Our findings emphasise the need to educate owners, veterinarians, physiotherapists, trainers, riders and saddle fitters that saddle slip is frequently an indicator of lameness, not necessarily a manifestation of an ill-fitting saddle or asymmetric shape of the horse's back. Detection of saddle slip provides an opportunity for the owner, riders and trainers to detect low-grade and subclinical lameness, with important welfare consequences."

Further exciting scientific studies are planned, with the support of the Saddle Research Trust, in order to build on these findings. To this end the SRT is currently seeking an honorary fundraiser to help secure ongoing financial support. For further information contact Anne Bondi on 07775 912202 or email annebondi@me.com.

[1]*An investigation of the relationship between hindlimb lameness and saddle slip, L. Greve and S.J. Dyson, Centre for Equine Studies, Animal Health Trust, Lanwades Park, Kentford, Newmarket, Suffolk, CB8 7UU, UK.*

-**ENDS-**

Notes to editors

- Image attached: *Caudal images of a horse ridden in straight lines on the left rein and on a left circle. There is saddle slip to the right, which was worse in circles compared with straight lines.* **High resolution version available on request.**
- The Equine Centre of the Animal Health Trust, a UK based charitable organisation, is dedicated to enhancing equine welfare through improved understanding and treatment of disease in horses, especially related to lameness and poor performance. Led by Sue Dyson and Rachel Murray, its work is world renowned for advances in equine orthopaedic injury and diagnostic imaging.
- The Saddle Research Trust was founded in 2009 to promote the welfare of the ridden horse and to raise awareness of the widely underestimated issues surrounding saddles, equine backs and performance. Trust Director, Anne Bondi, is currently undertaking a Doctoral Research Programme at the University of Sunderland, studying the interaction of horses, saddles and riders. The SRT facilitates collaborations between its Research Associates and promotes objective scientific research in order to further its aims.