

What makes thoroughbreds fall head over heels? Welfare concerns associated with steeplechase racing

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Introduction

Many studies have shown that fatality rates are much higher for steeplechase racing than those for hurdle and flat racing and most fatalities are associated with a fall. Horses often fall in full view of the public and the injuries sustained by the horses have a negative impact on the public's perception of racing and evoke strong reactions from groups concerned with animal welfare (Pinchbeck et al., 2004a). Because of increasing welfare awareness, recent studies have been directed towards the risks associated with horses falling in steeplechase races, considering risks associated with the horse, the race and jumps, pre-race factors and the riding technique used by the jockey.

Discussion

There are a number of factors that allow specific horses to be at a higher risk of injury than others. In one study (Pinchbeck et al., 2004a), age was shown to be negatively correlated with risk of injury in flat and hurdle racing but not in steeplechasing. One explanation for this pattern is that although the death rate for certain musculoskeletal injuries increases with age, the risk of injuries associated with falling decreases with age, as it is correlated with experience, resulting in a negligible effect of age (Pinchbeck et al., 2004b). Pinchbeck et al. (2004a) also concluded that previous experience of jumping fences under race conditions significantly decreases the risk of falls and the more times a horse is run on a particular course the lower its risk of falling on that course. The introduction of schooling races on several different courses would be beneficial to decreasing the risk of injury. The study performed by Pinchbeck et al. (2004c) found that horses with a long toe long heel conformation were more likely to suffer an injury due to over-extension of the fetlock with subsequent increase in tension within the flexor support structures. This may be the result of prolonged periods between shoeing, but it is one of the most commonly seen malformations of the hoof (Pinchbeck et al., 2004c). The results of a study performed by Takahashi et al. (2004) whose aim was to determine the risks of superficial digital flexor tendon (SDFT) injury, showed that a heavier mean body weight, previous steeplechase experience correlated with age, and sex (male), also increased the risk of SDFT injury.

One of the aims of the case-control study performed by Pinchbeck et al. (2004a) was to determine the risks associated the race and jumps. The results found that fences on uphill gradients had a lower risk of horses falling than downhill jumps, possibly because horses travelling downhill may be more extended, making it more difficult for them to adjust their stride for take off. However, uphill fences were still a higher risk than those on the flat because of the increased physical demand. The type of fence jumped was also shown to affect the risk of falling at the next fence. Fences jumped shortly after a water jump had the greatest risk of falling, most probably due to the horse misjudging after jumping a much lower and wider jump. In contrast, if the previous jump was a plain fence the risk of falling at the next fence increased with distance. This is because horses, when racing over a longer distance, speed up and extend their stride, which makes it harder to then jump. After the first fence the risk of falling decreased for up to seven fences but then steadily increased. Consequently, longer distance races were associated with a higher risk. Similarly, later jumps were found to hold higher risks due to fatigue or jockeys trying to win the race.

Pinchbeck et al. (2004b) reported that softer going ground was associated with a decreased risk and that aims should be made to run steeplechases only in these conditions. The results of the study also identified that as the journey time to the race track increased, the risk of falling increased. Horses that undergo long-distance transport with no access to water often suffer from dehydration and fatigue. As horses are not fed or watered once they arrive at the

track, unless they are staying overnight, there is little chance that allowing longer rest periods before racing will have a positive effect (Pinchbeck et al., 2004b).

Pinchbeck et al. (2004d) used video recordings of races in an attempt to quantify within-race risk factors. The results found that the risk of falling was significantly associated with whip use and race progress. Horses progressing in the race and being whipped were at the greatest risk as they were very extended, which did not allow sufficient adjustment for take-off. Horses that were not progressing in the field were also at more risk if the whip was being used, as the whip may unbalance the horse. To win, horses need to progress through the field and therefore this is not modifiable, however, whip use is modifiable and Pinchbeck et al. (2004d) suggested the introduction of limited whip use, whip-free races or jockey education on whip use as possible strategies to decrease the risk of injury.

Conclusion

There are many factors that increase the risk of a horse falling in a steeplechase race and injuries and fatalities during racing will continue to be a major welfare concern unless attempts are made to minimise these factors. The papers discussed all highlight important areas that should be implemented by trainers, jockeys and racing associations. Equine behaviour has been suggested to affect racing performance and further research should be performed on this area. Whip-free races run on shorter tracks with soft going and the appropriate distances between each type of fence, run by well hydrated younger horses with good hoof conformation and proper schooling would be an elegant first step to increasing the chances that a horse will outlive its steeplechase career.

References

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