

Editorial

Risks and Outcomes of Equine Flat Bone Fractures

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The bones of the equine skull and pelvis, characterized as flat bones, provide broad areas for muscle attachment, and give protection to underlying organs. They are predominantly formed by intramembranous ossification, with some contribution of endochondral ossification, which may be a factor favouring fracture union. However, compared with the long bones in the horses, there are a few studies published on fractures of the equine skull and pelvis, despite their potential for morbidity and a poor clinical outcome.

Being covered by very little soft tissue, bones of the equine skull are quite susceptible to blunt trauma such as a kick. In this issue of the Journal, an *ex vivo* study investigated orbital fracture risk due to a simulated 'kick'. The risk of orbital fracture was greater from the kick by a 'shod hoof' than from an 'un-shod hoof'. The authors concluded that horses kept in group-housing systems should be un-shod. Of course, this would not preclude the risk of orbital fractures caused by other trauma, such as rearing up or falling. However, the authors have developed an interesting model for further fracture investigations.

A second study published in this issue on outcome of equine pelvic fractures, found some similarities to other

species. As for the elite human athlete, and the racing greyhound, some pelvic fractures in horses were stress fractures. Also, acetabular fractures in sport horses had a poor prognosis for return to athletic performance. Not too surprising really, considering the challenges of getting anatomical reduction and robust fixation of this articular fracture in a horse. These difficulties are made more formidable by the challenges of performing high-quality diagnostic imaging in the horse. Apparently, progress is being made, as the authors relied heavily on ultrasonography for diagnosis in many of the cases included in their study.

Aside from these two featured articles, there is a diverse array of other studies reported in this issue, germane to a variety of other aspects of orthopaedics and traumatology of several species.

Conflict of Interest

None declared.

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