Diagnosis and treatment of neck pain in horses

There are many possible causes of neck pain in horses; diagnosis is key to successfully managing the condition.

Neck pain is recognised in juvenile and adult horses and can have a variable aetiology, ranging from a single traumatic incident to chronic degenerative arthritis, or a combination of both.

The clinical signs can range from mild, performance-limiting stiffness to intense pain and muscular spasm. Neck pain may also be transient and can be misinterpreted by owners, making recognition difficult if the horse is not exhibiting signs of pain when examined. Additional clinical signs can include ataxia, forelimb lameness, patchy sweating and muscular atrophy.

The key to the successful management of neck-related conditions is an accurate diagnosis, but this can be challenging due to the complex anatomy, the lack of localising signs, and the inadequacy of 2D imaging techniques. Recently, the development of advanced imaging techniques such as computed tomography has allowed 3D imaging of the entire neck; this will vastly improve our ability to diagnose and treat neck pathology.

Dealing with a suspected fracture

In cases with acute onset severe pain, a cervical fracture should be considered as a potential diagnosis, particularly if a traumatic event has been witnessed, and the horse managed appropriately.

Horses with fractures of the vertebrae should be confined and provided with adequate analgesia; manipulation of the neck and gait analysis should be kept to a minimum. These horses should be kept in a calm environment and should not be tied up or excessively restrained as they may be liable to panic and exacerbate their injuries.

Survey radiography, including laterolateral, dorsoventral and oblique projections is performed, but even good-quality radiographs may fail to identify some fractures. If a fracture is suspected, but cannot be identified radiographically, then nuclear scintigraphy may be of benefit.

CT is the imaging modality of choice, but requires general anaesthesia to image the entire neck, with an inherent risk of fracture deterioration during recovery.

Both conservative and surgical management may be appropriate, depending on the fracture configuration. Conservative management is often appropriate and has the advantage of being cheaper and without the risk of recovery from general anaesthesia.

Conservative therapy can be surprisingly successful, even for severe fractures if the degree of ataxia does not lead to recumbency (see Figure 1). Owners should be warned that this can occur many weeks after the injury, particularly when the stabilising muscle spasm subsides.

As diagnostic imaging of the neck – and in particular the articular process joints – improves, so will the therapeutic options available.

FIGURE 1 (A) laterolateral radiograph of the mid cervical region of an eight-month-old Warmblood colt which presented with acute onset ataxia and neck pain, showing fracture of the 4th cervical vertebra and severe disruption of the intervertebral articulation. The horse was managed conservatively and repeat radiographs at six weeks (B) and four years (C) show progressive callus formation. The horse went on to make a full recovery and successfully performed at dressage.