

# Dorsal cervical nerve plexus block for treatment of acquired spasmodic cervical torticollis (scoliosis) in a horse

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## INTRODUCTION

In the horse, acquired cervical torticollis (scoliosis), in which the cervical vertebrae are twisted or crooked, appears to be rare with few reported cases (McKelvey and Owen, 1979; Van Biervliet et al, 2003). A variety of reasons are reported for acquired cervical scoliosis. Musculoskeletal causes have included fracture/subluxation of cervical vertebrae, unilateral cicatricial muscle contracture, unilateral muscle rupture, unilateral paralysis subsequent to cervical spinal nerve damage and nutritional dystrophic myodegeneration (Dollar, 1920; McKelvey and Owen, 1979). This clinical report describes a technique for correction of an acquired cervical torticollis in a horse.

## CASE HISTORY

A 6-year-old male Arabian horse was presented to the surgery clinic of the Faculty of Veterinary Medicine, Cairo University, with a history of 3 days duration of a deviated neck. The owner reported that the horse was inflicted with such a condition accidentally following tying the horse's head with a short rope. The horse developed severe deviation of the neck after unsuccessful attempts to release the hanged head by the short rope for full recumbency. There was also an indication of rope trauma at the neck.

## CLINICAL FINDINGS

On presentation, physical examination revealed no marked findings. There was severe torticollis of the neck associated with inability to raise the head up. The concavity of the deviated neck occupied the right mid-neck side (Fig. 1). Neurological examination was normal. Radiography of the cervical vertebrae did not show any bony or articular lesions. The diagnosis was acquired accidental cervical torticollis.

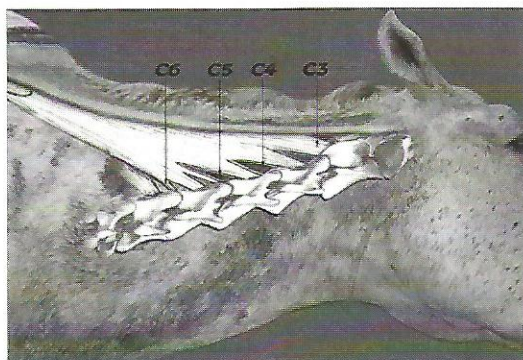


**Figure 1** - A 6-year-old male horse with acquired spasmodic cervical torticollis.

## TREATMENT

### Dorsal cervical nerve plexus block technique (Preliminary trial)

The horse was anaesthetized and positioned in lateral recumbency on the left side. Aseptic preparation of the right concave side of the affected neck was performed. The wing of the atlas as well as the transverse processes of the subsequent cervical vertebrae were palpated at the concave right side of the neck as far as caudally as the level of C6. With deep digital pressure, the intervertebral indentations between the cervical vertebrae were palpated and marked with a marker pen indicating the landmarks for the branches of the dorsal cervical nerve plexus from C3 up to C6. A stout hypodermic needle (120 mm long, 0.8 mm bore, 21 gauge) was inserted through the skin (the first landmark -C3) in the intervertebral depression until it struck the articular process of cervical vertebra. The



**Figure 2** - The exits of dorsal cervical nerve plexus (C3-C6) in relation to cervical vertebrae.



**Figure 3** - The landmarks (injection sites) for dorsal cervical nerve plexus block (C3-C6).