

EquineReview

Introduction: Facial nerve paralysis, synovitis following blackthorn injury and sepsis of the calcaneal bursae are discussed in this month's selection of three recent papers for equine practitioners. [10.12968/ukve.2020.4.6.188](https://doi.org/10.12968/ukve.2020.4.6.188)

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Facial nerve paralysis in equids

In contrast with cats, dogs and humans, facial nerve paralysis is poorly documented in equids. In this retrospective case series Boorman and colleagues in *J Vet Intern Med* (2020; 34:1308–1320. <https://doi.org/10.1111/jvim.15767>) describe the clinical features of 64 horses presenting with facial nerve paralysis, excluding postoperative cases. Unlike in other species the most common aetiology was trauma, with true idiopathic cases being unusual, and the majority (92%) of cases presented with unilateral disease. Central nervous system disease was the second commonest cause, emphasising the need for a thorough clinical and neurological examination in such cases. Over 50% of horses were unable to blink and required specific ocular therapy. Twenty five percent of horses were euthanased but only one was directly as a result of the facial nerve paralysis, and of the surviving animals 72% showed complete resolution of paralysis, with a further 14% showing partial improvement. Weaknesses of the study included a lack of advanced imaging (computed tomography) in the majority of cases and low numbers for specific diseases resulting in facial nerve paralysis, making it hard to draw valid conclusions with regards to prognostic indicators.

Blackthorn injury and synovitis

In the UK horse population, penetrating injuries from blackthorns (*Prunus spinatus*) are a common cause of synovitis and lameness, but the prognosis following treatment for this injury is poorly described compared with traumatic synovial sepsis. This prospective case series by Ashton, published in *Equine Veterinary Education* (2020; 32: 492–499. <https://doi.org/10.1111/eve.13008>), describes the treatment and outcome of 35 cases of confirmed blackthorn injury that resulted in synovitis; horses with in-

jury to significant soft tissue structures were excluded. All horses were treated surgically in two stages; first, the thorn was removed via an incision created using ultrasound guidance, following which endoscopic lavage of the synovial structure was performed. In 49% of cases the blackthorn was present within the synovial cavity. Both the total nucleated cell concentration and total protein were slow to return to normal after surgery, with values remaining significantly elevated 2 days postoperatively, but the prognosis for a return to work was excellent; all horses recovered. This study suggests that synovitis secondary to blackthorn injury has a more favourable prognosis compared with traumatically induced synovial sepsis.

Calcaneal bursa sepsis

Infection of the calcaneal bursae is a common sequel to wounds on the plantar aspect of the tarsus. Endoscopic treatment of the septic synovial structure and wound debridement under general anaesthesia are considered the gold standard treatments, but the prognosis for this particular injury is poorly documented. In a recent multicentre retrospective case series, Isgren and colleagues in the *Equine Vet J* (2020; 52:404–410. <https://doi.org/10.1111/evj.13180>) aimed to identify prognostic indicators and document the prognosis in 128 horses with sepsis of the calcaneal bursae. Of 123 horses which recovered from general anaesthesia 88% ($n=108$) survived to hospital discharge, of which 75% ($n=92$) required a single surgery. Twenty horses underwent a second surgical procedure, of which 60% ($n=14$) survived to discharge. Of the horses discharged from hospital 87% survived long term, and 91% returned to some form of athletic function. Multivariate analysis identified administration of systemic antimicrobials before referral was associated

with reduced mortality, while moderate or severe tendon involvement, bone involvement and wound dehiscence were associated with increased mortality.

Does xylazine or acepromazine affect assessment of forelimb lameness?

Diagnostic anaesthesia is a key component in equine lameness investigation but can be challenging in fractious horses and is sometimes facilitated by the administration of acepromazine or xylazine. The effects of these pharmacological agents on both subjective and objective gait assessment was evaluated in a prospective, blinded, cross-over study by Morgan and colleagues in the *Equine Vet J* (2020; 52: 593–600. <https://doi.org/10.1111/evj.13225>). Six horses with experimentally induced forelimb lameness (graded 3/5) were treated with intravenous xylazine (0.1–0.2 mg/kg), intravenous acepromazine (0.02–0.4 mg/kg), intravenous saline (placebo) or an abaxial sesamoid nerve block. Both objective and subjective lameness assessment was performed for up to 60 minutes after each treatment, with a 7-day washout period. As anticipated, the nerve block caused a significant reduction in lameness, but this was observed over a 45-minute time period, confirming the previously reported finding that foot related lameness can take considerable time to be fully alleviated by perineural anaesthesia. No reduction in the mean subjective and objective lameness scores was noted following acepromazine or xylazine administration. Significant sedation-induced ataxia was also not observed. These findings support the use of low dose acepromazine and xylazine during forelimb lameness assessment, but further work is needed to assess the effects of these agents in horses with subtle lameness or with lameness originating from structures other than the foot. **EQ**