Injury to tendons and ligaments often requires a long rehabilitation period, and frequently results in re-injury. The suspensory ligament of the horse is no exception to this; hind limb proximal suspensory injury in particular carries a poor prognosis\(^1\). Challenges include accurate diagnosis, early diagnosis, bilateral disease, anatomical constraints during inflammation, and low intrinsic healing properties of the tissue\(^2\). Treatment approaches are varied, as is often the case with complex multifactorial disease processes for which no ideal treatment exists. As the sophistication of diagnostic techniques increases, the accuracy of diagnosis and accuracy of treatment outcome assessment will improve. Currently, diagnostic modalities employed that identify proximal suspensory desmitis include: perineural analgesia, ultrasonography, radiography, nuclear scintigraphy and magnetic resonance imaging (MRI)\(^3\). MRI is the preferred diagnostic technique, although it is not universally practical or available\(^4\). Over time, published reports may refine treatment outcomes based on most accurate diagnostic information.

Treatment approaches that have been reported for proximal suspensory desmitis include: conservative rehabilitation\(^1\), extracorporeal shock wave therapy\(^5\), radial pressure wave therapy\(^6\), desmoplasty\(^7\), and fasciotomy with neurectomy\(^2\). Regenerative therapies such as platelet rich plasma\(^8-10\) and bone marrow components\(^11\) have also been studied for beneficial effects on suspensory ligament injury.

An earlier report of showed 77% of 29 horses diagnosed with suspensory desmitis returned to full work without recurrence\(^12\). However, hind limb proximal suspensory desmitis carries a poor prognosis with only 13% of horses returning to full work at 6 months after diagnosis\(^1\). Prognosis after treatment with radial pressure wave or focused shockwave therapy varies between 41-62% depending on modality used, location and chronicity of lesion\(^5,6\). Desmoplasty using a minimally invasive surgical technique with ultrasonographic guidance has a reported success rate of 85%\(^7\). Taking into account the potential compression of the proximal suspensory ligament by the plantar fascia, a surgical approach involving fasciotomy with neurectomy of the deep branch of the lateral plantar nerve has been employed to treat the frustrating hind limb proximal suspensory desmitis cases with a 78% success rate\(^2\). Reports of intra-lesional injection with platelet rich plasma\(^8\), porcine urinary bladder matrix, bone marrow components or other regenerative modalities have given a favorable prognosis but incomplete information about long-term outcomes. This presentation will review current evidence about treating suspensory ligament desmitis, as well as present new data regarding outcome after platelet rich plasma therapy and desmoplasty.