Proximal Hindlimb Suspensory Ligament Desmitis

This condition is a common cause of lameness in sports horses and seems to be an increasing problem. There are many possibilities as to why this is occurring. It is thought that the increasing use of artificial surfaces may play a part, also the breeding of horses with increasingly extravagant movement who seem to be at increased risk of injury. In addition it may simply be that, as our knowledge of the condition increases and ultrasound machines become more advanced, we are better at diagnosing this condition.

What is proximal suspensory desmitis
This is injury to the top part of the suspensory ligament, near or at the insertion of the ligament on to the back of the cannon at the top of the leg. Frequently both hindlimbs are affected.

The lameness caused by this condition is often subtle, and is seen as poor performance, gait change, evasion (such as bucking, refusing to do certain movements or reluctance to jump). In rare circumstances it can cause a more obvious lameness.

It tends to occur frequently in big moving horses, as well as horses with straight hock conformation or horses with poor foot balance. Often the horse will be lamer with the worst affected leg on the outside of a circle and the horse will often be worse on soft vs hard ground.

Hindlimb proximal suspensory desmitis tends to be more problematic to treat than the same condition in the forelimb. This is likely to be due to many factors, one of which is that the ligament cannot easily swell when injured as it is compressed on either side by the splint bones which sit further back on the leg in the hindlimb than the forelimb.

It can be found in conjunction with other conditions such as sacroiliac discomfort, hock and stifle problems.

Diagnosis
There is generally no heat or swelling of the affected leg(s) so it is rarely possible to diagnose this condition without further tests.

Ultrasound examination is essential to identify any damage to the ligament, including any bony damage to the attachment of the ligament to the bone, changes in the fibre pattern of the ligament or enlargement of the structure.

Nerve blocks are required to confirm this is the source of the discomfort for the horse and to make sure there are not several sites of pain.

Radiographs are frequently taken to check the cannon bone where the suspensory ligament attaches for any bony remodelling or damage due to the ligament injury.

MRI is sometimes useful to fully assess difficult cases.

Treatment Options
Conservative treatments
Rest and controlled exercise is rarely successful for this condition with very low success rates reported and high incidence of recurrence of lameness.

Controlled exercise with shockwave leads to increased success rates, especially in less longstanding cases. The shockwave has a painkilling action and increases healing in the area. Approximately 40% of cases return to work with this treatment which may be combined with steroid injection of the area in some cases to reduce inflammation. In addition shockwave is sometimes used as a temporary treatment to allow the horse to comfortably complete its competition season before surgery is undertaken.
Surgical treatment

Neurectomy and fasciotomy - Surgery is carried out under a short general anaesthetic, with a small incision being made at the back of the leg. A section of the small nerve supplying the top of the ligament is removed and the tough tissue (fascia) which lies over the ligament and restricts it from swelling is cut. The tissues are then closed and skin staples placed. In some cases only the tissue overlying the ligament is cut (fasciotomy) however in many cases the nerve has become abnormal due to pressure from the ligament swelling, therefore generally a section of the nerve is removed as well. Surgery is not advised if there is damage to the rest of the ligament, as deterioration of these areas could occur following surgery.

Success rates with surgery are around 80%, making it a popular treatment option with many horses making a full recovery.