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| **Palmar Digital Neurectomy** | |
| **Indications** | Generally performed in cases of end stage navicular disease, when all other treatment options have failed. |
| **Procedure** | Step 1 - Make an incision   * Make a 2-3 cm skin incision along the dorsal margin of the superficial digital flexor tendon. * Locate the ligament of the ergot and preserve it.   Step 2 - Identify nerve   * Identify any accessory branches of the nerve and transect. * Blunt dissect soft tissues under the ligament of the ergot to locate the palmar digital nerve. * Identify and separate the palmar digital artery. * Isolate the palmar digital nerve by inserting the tips of hemostats beneath.   Step 3 - Transect the nerve   * Use the 'Guillotine technique' and transect the nerve. * Place a sterile tongue depressor under the nerve to provide a firmer cutting surface and also to place more traction on the proximal end of the nerve for resection * Apply a hemostat to the proximal cut end of the nerve. * Pull the proximal end gently towards the hoof and resect the length of nerve exposed. * Allow the freshly cut proximal end to retract into soft tissues.   Step 4 - Close soft tissues   * Close subcutaneous tissues with a continuous absorbable suture. * Close skin with non-absorbable interrupted sutures. * Cover site with sterile dressing and apply pressure bandage. |
| **Postoperative Care** | * Check that sensation has been lost in the palmar digital area; if not, perform sequential nerve blocks to identify innervation → redo surgery * Anti-inflammatory, eg phenylbutazone for 4 days. * Change bandages every 2-3 days, maintain for 2-3 weeks. * Box rest 2-3 weeks; walking exercise for following 3 weeks. * Continue care as appropriate for original injury. |
| **Potential Complications** | * Incomplete transection of nerve and/or accessory nerves. * Re-innervation of heel → return of lameness → redo neurectomy. * Neuroma formation - ends of nerve fibers in connective tissue → pain approximately 3-6 months after surgery → lameness, local sensitivity to palpation and swelling at surgical site → repeat neurectomy proximal to neuroma site and take care to protect area post-operatively. |
| **Advantages** | * Simple surgical procedure. |
| **Disadvantages** | * Of no benefit if source of pain involves the dorsal half of the distal digit or does not respond to palmar digital perineural anesthesia * Permanent loss of sensation to the foot could result in inadvertent self-trauma. |