**PALMAR DIGITAL NEURECTOMY**

**uses**

Occasionally used to treat chronic heel or navicular area pain used when no longer responding to other medical treatment methods. Final treatment option may prolong athletic usefulness, owner convenience, owner education vital to success.

**candidates for surgery**

 > 90% of lameness resolved after PDN block; Not an acute ligament or DDFT injury.

Age of horse:Baxter 1985,Taylor 2010

70% sound for 2 years ,60% @ 3 years ,50% @ 4 years ,40% @ 5 years.

Medical options for younger horses i.e. less than 10 years of age if possible

**Post-operative care key to success**

• 3 months’ time off • 1-month stalled • 1 month small turnout • 1 month increasing exercise

**Potential complications**

Nerve regrowth and reinnervation

Undetected subsolar infection

Step on foreign body

DDFT rupture

Luxation DIP joint

May rupture epineurium and allow axonal sprouting; Nerve trauma may contribute to neuroma formation

**Proposed advantage**

allows nerve stump to withdraw into tissues not having sx trauma; Pull through technique also get accessory nerve branches

**PROCEDURE**

**Considerations prior to surgery**

• Basisesamoid nerve block • Then clip hair coronary band to above fetlock

• Circumferential surgical scrub

**Instrumentation**

 • # 10 scalpel blade

 • Curved mosquito haemostat

 • Gauze sponges

 • Good technician

**Surgical procedure**

 • (Black, Honnas) two incision pullthru technique

• 2 – cm incision through skin & SQ

• Proximal to collateral cartilage

• Apply closed tips of hemostats perpendicular to long axis of nerve

 • Open tips with firm pressure to strip fascia from nerve

• Repeat as needed

• After isolation transect distal end, Gentle traction to identify proximal incision site at base of sesamoids, Transect distal segment 2 – cm proximal incision over palpable nerve ,Isolate nerve and apply traction to remove nerve from proximal incision,Flex fetlock.

 • Apply traction to nerve and transect at proximal extent of incision

• Allows nerve stump to withdraw into tissues unaffected by surgical trauma

• Usually 6 to 7 cm of nerve removed

• 2- incision technique

• Black 1992

**Post-operative care**

 Bandage for 2 weeks , Bute – 2 gm daily for 5 days then 1 gm SID for 5 days .Important to minimize movement and inflammation at surgery site; Decrease scar tissue. Staple removal at 2 weeks .6 mg triamcinolone at proximal nerve stump SQ , Decreases post-op painful neuromas, Rebandage for 2 more weeks.

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