

Analgesia and Anesthesia

There are several anesthetic/analgesic protocols to choose from. These include (but are not limited to):

- 2% Xylazine at 1 mg/kg IV and/or 10% ketamine at 2 mg/kg IV.
- 3 mg/kg detomidine (provides non-narcotic sedation and analgesia) given intravenously immediately prior to surgery for mild sedation. Has a duration twice as long as xylazine, and is also cheaper.
- Medial and lateral palmar digital nerve analgesia performed bilaterally at the mid-pastern level with 3mL lignocaine.

Although not necessarily optimal from the standpoint of surgeon comfort, as it is technically easier to perform with the patient under general anesthesia and positioned in dorsal recumbency, a standing neurectomy can be performed effectively and without compromise to the patient. In situations where the added cost of general anesthesia prevents palmar digital neurectomy from being considered as a treatment option, or if anesthetic risks preclude general anesthesia as an option, it may be prudent to consider performing the neurectomy in the standing patient. It should be kept in mind, however, that there are certain situations where standing surgery is not in the best interest of the horse, the handler, or the clinician, and general anesthesia should be employed.

Advantages of Standing Surgery

- With the horse standing, the procedure is carried out quickly and none of the risks of general anesthesia are encountered.
- Better restraint and analgesia (the combination is synergistic, not merely additive)
- Dose sparing effect on both drugs
- Better cardiovascular preservation
- Can provide satisfactory working condition for minor surgery when combined with local anesthesia
- Less expense (average of \$400-\$700), less risk, less logistics

Disadvantages of Standing Surgery

- Some combinations of drugs used for sedation can lead to incoordination during recovery which could unintentionally cause injury to the horse.

Advantages of Recumbent Surgery

- With the horse in dorsal recumbency under general anaesthesia, repositioning the horse to access both sides of the limb is not required, and a tourniquet is not necessary because minimal bleeding occurs.
- Safer & easier in recumbent horse
- Less hemorrhage
- physically easier on surgeon

Disadvantages of Recumbent Surgery

- More expensive (average around \$1,200-\$2,000)
- Some anesthetic risk involved – there is a higher morbidity and mortality associated with general anesthesia
- When a horse is placed in dorsal recumbency, the weight of the abdominal contents presses on the diaphragm and limits lung expansion, leading to hypoventilation. If the drugs used to produce anesthesia depress cardiovascular function, these changes will be exaggerated due to a ventilation-perfusion mismatch.