**Synovial Structures Block**

**Preoperative Considerations**

**Equipment**

* Drugs: Most commonly used local anesthetics include 2% lidocaine (30 to 45 minutes) and 2% mepivacaine hydrochloride (90 - 120 minutes) Bupivacaine ( 3-6 hours)
* Needles: 18, 20, 22 gauge, 1.5- 3.5 inch needles. Larger needles are used for joint blocks to prevent the needle breaking off in the joint when the horse bends its limb.
* Syringes: 5, 10 and 20 ml syringes.
* Other: 4 × 4 gauze soaked in disinfectant scrub, 4 × 4 gauze soaked in alcohol, examination gloves, twitch, clippers

**Restraint**

* Physical Restraint: It is important to have an assistant with good horse-handling skills and restraint when performing synovial structure blocks. In factitious horses, a lip twitch or lip chain may be used for control. [picture] The use of stocks should be avoided for restraint as they can cause risk of injury to the horse and clinician.
* The limb may be held with one hand while facing the horse, however this means that the block will be performed using a single hand. Some clinicians prefer to face the same direction as the horse. This allows the clinician to hold the horse’s foot between his/her knees to free both hands during the procedure. However, if the horse swings its limb caudally the clinician may be at risk of injury.
* Chemical Restraint: The use of acetylpromazine (0.044 mg/kg IV) or xylazine (0.2 mg/kg IV) can be administered to some horses. However, to ensure proper gait assessment can be performed, these should be avoided if possible as there is uncertainty of the effects of sedation on gait.
* In situations where the horse must be sedated to administer local anaesthetic solution, antagonising the sedative effects of an a2-agonist, such as xylazine, with yohimbine (0.12 0.02 mg/kg bwt) or tolazoline (7.5 1.1 mg/kg bwt) may make interpretation of diagnostic analgesia easier.

**Preparation**

* Before each injection, if there is long hair over the site, the hair should be clipped in order to gain a proper view of injection sites.
* Prepare the skin at the injection site with disinfectant scrub, chlorhexidine solution alternating with alcohol. This is to prevent the risk of infection within the joint. All sites anywhere near joints or tendon sheaths are scrubbed for a joint injection as sometimes the joint or tendon sheath is inadvertently pricked by the needle.

**Prerequisite Knowledge**

* Local analgesia for diagnostic purposes should not be performed with horses suffering from sudden onset, severe lameness until a fracture or severe soft tissue injury has been ruled out. Desensitisation could lead to increased weight bearing and catastrophic worsening of the injury.
* The horse must be sufficiently lame for an improvement to be appreciated. In some instances, the owner is asked to return an unfit horse to work in the hope that it will result in an increase in the severity of lameness which can be diagnosed.
* Always aspirate for blood before injecting to ensure you are within the synovial cavity.

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