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Joint injection

Also known as arthrocentesis. It Is a procedure where is administer drugs into the synovial structures or collect synovial fluid for examination.

Deposit of local anesthetics into synovial structures is commonly used to specifically identify the region causing pain in the lame limb. Intrasynovial injection of medications (e.g. corticosteroids, antibiotics, sodium hyaluronate) are also used to treat joint, tendon sheath and bursal conditions.

<u>The three commonly used local anesthetics:</u>

1. *Lidocaini hydrochloride 2 %*
    - induces anesthesia more slowly
    - provides shorter duration of anesthesia than mepivacaine and bupivacaine does
    - provides anesthesia for 30-45 minutes
    - can cause irritation of local tissues
2. *Mepivacaine hydrochloride 2 %*
    - is used more frequently tha lidocaine
    - longer lasting and less irritating than lidocaine
    - provides regional anesthesia for 90-120 minutes
3. *Bupivacaine hydrochloride 2 %*
    - provides longer duration of anesthesia (4-6 hours) than provided by lidocaine or mepivacaine

Intraarticular anesthesia is more precise than regional anesthesia in diagnostics of lameness. The regional anesthesia may not adequately localize the source of pain responsible for lameness. Regional nerve block desensitizes extraarticular structure as well, such as ligaments, tendons, tendon sheaths, extraarticular bone.

Skin preparation

Many clinicians clip the hair over the injection site, but this has been shown to be unnecessary if an adequate sterile preparation of the site is performed. The injection site should be scrub with an antiseptic soap and then wiped with 70 % isopropyl alcohol.

To begin the procedure, palpated the injection area to identify the landmarks. The needle should be inserted without the syringe attached. When the needle must be redirected, it should be done without being withdrawn back throught the skin. After the needle is in correct position, the syringe is attached.

The depth of needle penetration varies with the joint. The carpal, tibiotarsal and fetlock joints, the needle is inserted superficially. The coffin and pastern joints, the needle is inserted deeper.

Complications

The two most common complications are a broken needle and a postinjection reaction. A needle should not be inserted through inflamed tissue into a joint, but many joints have an alternative approach to avoid the site of inflammation.