**Auriculopalpebral Nerve Block**

Uses

Used in Cattle, Equine, Canine, Feline

* Controls eyelid movement, it can stop eyelid movement for a specific amount of time for eye surgeries.

BLOCKS

* + orbicularis oculi muscle
  + frontalis muscle
  + external muscles of the
  + ear

Advantages

* will provide excellent eyelid akinesis.
* can be used in conjunction of sedation and regional blocks.

Disadvantages

* Does not remove sensation to acquire full periocular desensitization, the supraorbital,
* lacrimal, infratrochlear and zygomatic nerves must be blocks as well.
* If globe movement needs to be controlled then, cranial nerves III, IV, VI must also be blocked.

**4 Point Retrobulbar Nerve Block**

This is a peribulbar or a retrobulbar injection using local anesthetic to desensitize the structure of the eye and it also paralyses the external ocular muscles. Used in cattle and horses.

Advantages

* Provides excellent peri-operative analgesia.

Disadvantages

* Injection into a blood vessel - DEATH
* Injection into the Cerebrospinal Fluid surrounding the optic nerve - collapse, seizures, respiratory arrest following cardiac arrest.
* Risk of globe trauma
* Risk of trauma to local tissues
* Risk of initiation of the oculocardiac reflex

**Peterson Nerve Block**

Uses

* Desensitizes the eye and the orbit for surgeries such as enucleations and foreign body removal, or even horn removal in adult bovine species. Used in cattle and horses.

BLOCKS

* + If enough of the local anesthetic is deposited in the pterygopalatine fossa, then it may be possible to block the optic nerve.
  + Oculomotor (III), trochlear (IV), abducens nn. (VI), and all 3 branches of the trigeminal nerve (n.) (V)

Landmarks

* + Direct needle notch between the zygomatic arch and supraorbital bone toward the back of the eye.

Advantages

* Considered safer than the retrobulbar block because there is less risk of penetration and hemorrhage.
* Injection of the meninges surrounding the optic nerve is minimized during this technique.
* More effective
* causes less edema and inflammation with the infiltration of local anesthetics into the eyelids and orbits of other blocks.

Disadvantages

* More challenging requires a lot of skill and knowledge.

Subconjunctival Injection

https://www.vetlexicon.com/bovis/ophthalmology/articles/subconjunctival-injection/#:~:text=Subconjunctival%20injections%20are%20another%20means,or%20inflammation%20of%20the%20orbit.