

GENERAL ANESTHESIA II

Dissociative Anesthetics

Dissociative anesthetics have different effects compared to other known anesthetics. They do not affect the limbic and reticular system, and even stimulate the reticular system. It depresses the corticothalamic system. This leaves the animal unconscious and under analgesia. Reflexes remain largely unchanged. Briefly, since these anesthetics block the association pathways in the brain before performing sensory blockage, anesthesia created is called dissociative anesthesia.

a- Ketamine HCl: A phencyclidine derivative from arylcyloalkylamine group which is not a barbiturate derivative.

Indications:

- 1- As an induction agent for general anesthesia
- 2- Used for diagnostic purposes or alone during surgical procedures.

Contraindications:

- 1- In intraocular surgery,
- 2- Cases with high CSF pressure and cardiovascular disorders,
- 3- They are not used in hypertension.

Advantages:

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- 1- It does not irritate the veins and tissues.
- 2- Provides deep analgesia.
- 3- It weakens the laryngeal and pharyngeal reflex, but reflexes do not disappear. Therefore, the respiratory tract can be maintained without endotracheal intubation.
- 4- Muscle tone is preserved.

Disadvantages:

- 1- Increases heart rate, blood pressure and intraocular pressure.
- 2- Diplopia and nystagmus may occur.
- 3- There are no antagonists.

Dose: Horse: Xylazine (1.1mg / kg) i.v. slow administration or 20 mg / kg iv detomidine, 2 minutes later 2.2 mg / kg ketamine iv is given rapidly. Bovine: Xylazine and ketamine use provides complete anesthesia in cattle. Induction is comfortable, good muscle relaxation and anesthesia is associated with uncomplicated recovery. Xylazine is given 0.2 mg / kg im or 0.1 mg / kg iv, followed by deep sedation and sleep. Sheep: 20 mg / kg im., 4 mg / kg ketamine + 0.05 mg / kg xylazine iv or 4 mg / kg ketamine + 2 mg / kg diazepam iv. In goats: 11 mg / kg ketamine + 0.22 mg / kg xylazine im or 4 mg / kg ketamine + 2

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mg / kg diazepam after premedication with 0.4 mg / kg atropine iv. In dog: 20-25 mg / kg im. Adverse effects similar to convulsions, it should be used in combination with various agents that produce deep sedation and mild anesthesia (e.g. xylazine, acepromazine, promazine and diazepam). Often 5.5 mg / kg ketamine or 2 mg / kg xylazine or 2.75 mg / kg promazine im combination should be preferred. Cat: 20-22 mg / kg Ketamine im. 35 mg / kg im usually less than 4 weeks old are used in combinations. E.g.: Midazolam 0.2 mg / kg + 10 mg / kg ketamine im. Xylazine 1mg / kg + 22mg / kg ketamine im. xylazine 1 mg / kg + 5-10 mg / kg ketamine im combination is preferred. On the other hand; Xylazine 0.5 mg / kg + 20-25 mg / kg ketamine im combination gives more successful results. The other proposed combination is; 80 mcg / kg Medetomidine + 5 mg / kg ketamine im.