

Use of Dexdomitor (dexmedetomidine)/ Butorphanol Sedation and Reversal for Minor Procedures in Dogs

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Introduction

I practice in a rural area and take my own emergency calls for established clients. This combination has allowed me to provide services such as minor laceration repair or other procedures in routine as well as emergency situations to be performed on an outpatient basis that would otherwise require hospitalization.

Dosage-Sedation

Sedation phase:

Dexdomitor (dexmedetomidine) 6mcg/# IM

Butorphanol 0.22mg/# IM

I use this combination in the same syringe for convenience, but it may be dosed in separate syringes. In small dogs the use of an insulin syringe will be required.

It will take approximately 15 minutes for the sedation to take effect. It may take a longer for sedation to occur in excited or aggressive animals. Obesity seems to delay sedation on occasion as well. The sedation with this combination is VERY predictable but in rare instances it may be necessary to muzzle aggressive animals if needed (only in a very small percentage).

Uses and Indications

Support such as IV fluids, etc. may be provided to the patient but the sedation is used for very short procedures so often it is not necessary unless used on a severely at risk patient.

Uses include minor laceration repair, skin biopsy, radiographic exams, and exams requiring minor sedation for subtle changes such as exam for ACL rupture. A very large percentage of dogs will be capable of endotracheal intubation under this combination as well, allowing inhalant support of oxygen or conversion to inhalant anesthesia.

This procedure is also very helpful in the management of fractious patients of all sizes from Chihuahua to Rottweilers as an aid in examination or procurement of sample collections.

Dosage-Reversal

Reversal phase:

Reversal is accomplished by using IM injections of Antisedan and Naloxone.

Antisedan (atipamezole) 6 mcg/# IM

Naloxone 1ml/40# of .4mg/ml solution

Dosage of Antisedan for reversal is same dosage on a volume basis as Dexdomitor that was used on the patient.

Naloxone dosage is 1ml/40# BW of .4mg/ml Naloxone solution. Lower dosages of naloxone may be used but responses may be variable. The cost of naloxone has escalated in price in the last couple of years.

Sedation takes approximately 10-15 minutes to reverse, or roughly the same amount of time that it will take for sedation to occur.

Precautions

Adverse side effects are minimal. Rarely vomiting or lethargy may occur post reversal but incidence is very low and symptoms are manageable. Use cautiously in brachycephalic breeds. If exhibiting signs of upper airway complications related to breed abnormalities on physical prior to use, another method of chemical restraint/sedation is strongly recommended.

If a general anesthesia is needed, after 15 minutes elapse, ketamine may be added at 2.3mg/# IM. Intubation and inhalant anesthesia may be used as well. At that point all of the precautions and support of the use of a general anesthetic will be needed. Do NOT attempt reversal with Antisedan and Naloxone if ketamine has been used.

Dosage chart-Sedation

# Body weight	Dexdomitor ml @ 6 mcg/#	Butorphanol ml @ .22mg/# of 10mg/ml
10#	.12ml	.22ml
20#	.24ml	.44ml
30#	.36ml	.66ml
40#	.48ml	.88ml
50#	.60ml	1.1ml
60#	.72ml	1.32ml
70#	.84ml	1.54ml