today’s equine veterinary practices, standing sedation is a critical part of many key procedures done on-farm and in the referral clinic. When choosing between the molecules available, veterinarians must consider safety, cost effectiveness for the client and the practice, and—above all—the ultimate efficacy of the product in achieving an appropriate level of sedation for the needed procedure.

Sedation and Analgesia

Sedation may be the practitioners’ first consideration in standing procedures such as dental care, suturing wounds and castrations, but choosing a molecule that provides a proven level of analgesia offers a more humane option for clients and their horses.

While sedation works to depress the horse’s brain, a molecule with an analgesic effect will also help to deaden pain for the animal—allowing for less reliance on the twitch and fewer reactions during a painful procedure.

Not only do these benefits mean a less traumatic experience for the horse, they also help to decrease the chance of injury to the owner or veterinarian during the procedure.

Dormosedan® (detomidine hydrochloride) is a synthetic alpha-2 adrenoreceptor agonist with sedative and significant analgesic properties, which is dose dependent in its depth and duration. This product provides veterinarians with the benefits of analgesia at a much higher level than that offered by molecules such as xylazine hydrochloride or romifidine hydrochloride.5

The value of an analgesic effect added to sedation can be clearly seen in equine dental practice; particularly during extensive dental procedures and standing surgeries.

“I think that Dormosedan gives us, as practitioners, the repeatable results that we need,” said Travis Henry, DVM, of Midwest Equine Services. “It also provides good analgesic properties when used at the 1.2 ml intravenous dose for an average sized (1,000 – 1,200 lb.) and temperament horse. I have been using Dormosedan for 13 years and began using it for standing castrations in the early 90s. The benefit I feel that Dormosedan gives in dental procedures is enough analgesia for the average procedure on the majority of cases so that I only need to use one drug. Any time I can get it done with the least amount or number of drugs, I feel that we are being safer for the horse’s sake.”

Dental Practice

In recent years Dr. Henry has used Dormosedan as a critical element in his dental procedures—now one of his biggest practice interests. While the bulk of his dental practice consists of maintenance on performance horses, approximately 30% of his cases are more extensive and need prolonged sedation.

“I typically give 1.2 mls or 12 mgs of Dormosedan to the average 1,000 – 1,200 pound horse for the initial dose,” he said. “This is after I have done a physical exam on the horse and decided what the personality of the horse is going to be like.”

Dr. Henry has used Dormosedan as a tool to help expedite dental procedures—an area he has found to be of great benefit to the health of his clients’ horses and to his entire practice.

“Dentistry is a scheduled visit that can be made in advance,” said Dr. Henry. “It can contribute to the bottom line of the practice due to the fact that all of the horses in the practice should have dental care once a year. Not to mention that dentistry can be scheduled when the veterinarian has more time to devote to the procedure—such as fall or winter.”

In charging clients for the sedation and analgesia portion of their horses’ dentistry needs, Dr. Henry finds that charging for “dental sedation” helps to get clients thinking about the fact that this type of sedation is different than that given for shorter procedures, such as joint injections. It therefore carries a slightly higher price tag in comparison with those procedures.

True Value

Charging clients for the use of Dormosedan in any procedure is slightly different than the flat rate for sedation traditionally utilized by veterinarians. Bimbo Welker, DVM, MS, has developed a simple formula that allows him to arrive at a price for Dormosedan use. Dr. Welker multiplies the dose by his cost for that amount and adds the percent markup and a $20 injection fee. So, for a typical 1.2 ml dose the cost to the client would be $38.60.

“I started using Dormosedan by itself, at full label dose, in March of 2003 … I’ve been ecstatic about its results,” said Welker. “I’m a real convert. With this one drug we get great analgesia and profound sedation in duration. It has an extensive dosage range so that the veterinarian can achieve the exact level of sedation they need. You don’t need to worry about combinations with this drug; and as it is a single drug, if you don’t get the effects you need you can simply give more.”

Welker’s confidence in Dormosedan comes from his participation in an ongoing study during which he has administered the drug to over 1,400 horses. The level of safety he has seen for both horses and veterinarians has been particularly exciting.

“I haven’t seen any toxicity or adverse reactions on any dose level I’ve used—even on extremely high doses I’ve administered during wet labs. The only result of the high dose was that the sedation lasted a long time. I’m not an advocate of giving high doses necessarily, but with Dormosedan you can use the higher dose if you need it.”

Dormosedan has been available in the U.S. for over 16 years, according to John Donecker, VMD, MS, diplomate ABVP (equine), FAAVPT and Senior Veterinary at Pfizer Animal Health. “It offers the benefits of significant analgesia, a huge safety margin and hypertension in the face of significant sedation.”

Dr. Donecker reports that the full label dosage for Dormosedan—critical for achieving optimum levels of sedation and analgesia—is 20 to 40 micrograms per kilogram of body weight, or 1 to 2 ml IV or IM to a 1,100 lb. horse.

At this rate of dosage the product produces a non-narcotic, reliable, dose-dependent sedation and analgesia, with flexible dosing that allows the veterinarian to regulate the depth and length of sedation.

“Detomidine hydrochloride is not a controlled substance like butorphanol tartrate used in combination with other molecules,” said Dr. Donecker. “By using Dormosedan as a simple, one-sedative variable the veterinarian has more control over the level of sedation and analgesia. In addition, more accurate dosing can be achieved, decreasing the need for “topping up” with second doses during the procedure. Given Dormosedan’s proven safety record and wide therapeutic safety margin, veterinarians can use this option with a great deal of confidence.”

As with all alpha-2 agonists, occasional reports of anaphylactic-like reactions have been received. The use of epinephrine should be avoided since epinephrine may potentiate the effects of alpha-2 agonists. Do not use in horses intended for human consumption.
DORMOSEDAN® (detomidine hydrochloride) Sterile Solution

For more information, please see the brief summary included with this article. For the full Dormosedan prescribing information, please visit www.pfizer.com/equine.

For Sedation: Administer Dormosedan® IV or IM at the rates of 20 or 40 mcg detomidine hydrochloride per kg of body weight (0.2 or 0.4 mL of Dormosedan® per 100 kg or 220 lb), depending on the depth and duration of sedation required. Onset of sedative effects should be reached within 2–4 minutes after IV administration and 3–5 minutes after IM administration. Twenty mcg/kg will provide 30–90 minutes of sedation and 40 mcg/kg will provide approximately 90 minutes to 2 hours of sedation.

For Analgesia: Administer Dormosedan® IV at the rates of 20 or 40 mcg detomidine hydrochloride per kg of body weight (0.2 or 0.4 mL of Dormosedan® per 100 kg or 220 lb), depending on the depth and duration of sedation and analgesia required. Twenty mcg/kg will usually begin to take effect in 2–4 minutes and provide 30–45 minutes of analgesia. The 40 mcg/kg dose will also begin to take effect in 2–4 minutes and provide 45–75 minutes of analgesia.

For Both Sedation and Analgesia: Administer Dormosedan® IV at the rates of 20 or 40 mcg detomidine hydrochloride per kg of body weight (0.2 or 0.4 mL of Dormosedan® per 100 kg or 220 lb). In cases where sustained analgesia is desired, one or more repeat doses of 20 or 40 mcg/kg can be administered at 6–12 hour intervals based on the depth and duration of analgesia required.

References:

Pfizer Animal Health
Div. of Pfizer Inc
Knox, IN 44304
USA
Distributed by:
Div. of Pfizer Inc
NY, NY 10017

For information on potential adverse reactions, see full prescribing information. Please see www.pfizer.com/equine.

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