

they are often after abdominal surgery. It seems the duration of analgesia with butorphanol is quite long and cows do not seem to mind skin closure at the end of the surgical procedure. And last, when performing teat surgery, the cow receives excellent peripheral analgesia and she seems to stand well and does not attempt to strike you with near the frequency as a cow does when she's under sedation with Rompun. Cows are also much less likely to fall down during surgery since the sedation part of the medication is not as severe as with Rompun.

As far as dosage and administration are concerned, I use butorphanol under the trade name *Torbugesic* as follows: Torbugesic intravenously about 15 minutes prior to surgery with a dosage of approximately 20-30 milligrams. That's 2-3 ccs for an adult Holstein cow. On a lot of cows, you can get by with a lot less than that, but it seems if you're going to be sure you have a good level of analgesia, I think it's better if you go with a higher dose. If the cow is fractious to begin with you might also want to administer about 10 milligrams of Rompun to slightly sedate her. Just a note, I feel it is best to give the product in the jugular vein as opposed to the caudal or tail vein as we so commonly give Rompun. This is because butorphanol provides great analgesia but provides minimal sedation. Take for example with Rompun, you know almost immediately whether you have administered the full dose intravenously based on how much the cow is sedated. With butorphanol be sure you have given the full dose intravenously; give it in the jugular. At a dosage of 30 milligrams you will have a long enough duration of analgesia to last through a 1-2 hour surgery and perhaps also provide some postoperative analgesia. I feel this has an advantage over local anesthesia since after a long procedure some of the local effect may be wearing off and the cow may resist again an abdominal wall closure. At least mine do. I've used butorphanol about a hundred times over the past year either alone or in combination with Rompun or local anesthesia without any adverse reaction. Furthermore butorphanol does not seem to depress cardiovascular and respiratory function enough, does not seem to be very dangerous to an animal in shock. Also it does not seem to produce the bloat

that you sometimes experience with Rompun.

In summary, I have found butorphanol to provide effective analgesia for abdominal exploratories, cecal torsions, DAs, cesarean sections, teat lacerations, patellar surgery, putting casts on calves, and surgical implant of embryos.

As a final note, I am sure many of you practitioners in the course of your travels after working on the occasional horse as I do, butorphanol does work excellently in this species as well!

Question: What is the withdrawal period?

Answer: As far as the withdrawal period, you've got them on antibiotics for a few days so hopefully after a week it's gone.

Question: Have you used lidocaine at that dose?

Answer: On many cases I have not used lidocaine at that dose but I think it's important to give yourself 15 minutes or so for it to really work. And if you've got a crazy cow, it's good to give her a little Rompun, trying to achieve sort of the effect that Rompun and morphine does in a horse and it seems like with Rompun and Torbugesic you can mimic that effect in the cow.

Question: Does it have any effect on GI motility or rumination?

Answer: I'm not totally familiar with that but I know that cows do not seem to bloat very much so I imagine it would not have a negative effect on GI motility, but I'm not sure.

Question: Any problems with pregnant cows?

Answer: I don't believe I've used it very much on pregnant cows other than ones of perhaps 30-60 day pregnancies and I haven't had any problems in those cows at all. I have not had any complaints of abortion after its use.

Question: Have you used it in calves?

Answer: Yes, I have used it in calves for umbilical hernia surgery and it does seem to be helpful although a lot of times you might want to give them some Rompun too to help sedate them or turn them upside down or possibly use Rompun, and ketamine is another alternative.

Question: Any problem in bulls?

Answer: I don't believe I have used it on bulls.

Mineral Oil in Wide-Mouthed Gallon Jugs

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I certainly appreciate being able to be a part of the practice tips session again tonight. There probably aren't more than 1 or 2 of you who attended the Bovine Meeting in 1982 in Nashville who remember that I gave a presentation in the Practice Tips Session there entitled "Tidbits from Tennessee." This one tonight could probably be entitled "Tidbits from Tennessee—Part II," because it's not gonna be

any better than the one was in Nashville.

These folks before me have had some interesting topics, and I've sure enjoyed these sessions in the past. I hope that I might have a couple of things to say that might help you out in practice.

Our home's in Sweetwater, Tennessee, which is kind of like little Wisconsin. It's in a part of the country that a lot of

folks think a lot of, as you can see by this license plate. Beef and Dairy Farming are big portions of Tennessee Agriculture, as evidenced by several signs.

You'll notice that I have 2 topics on the program tonight.

The 1st one is entitled "Mineral Oil in Wide-Mouthed Gallon Jugs." Little ideas like this sure are convenient in practice. We started using these when I got tired of pouring Mineral Oil out of small-mouthed gallon jugs into my stainless steel bucket, and then trying to get it clean over the next few days. I had a brainstorm and started using wide-mouthed gallon jugs. We filled them up to where the sides start tapering in at the top. This leaves room for Magmilax Powder, DSS, Terkaps, or anything else you might want to add.

We bought Mineral Oil in 55 gallon oil drums, which is much cheaper, and of course it's easy to dispense. A readily available pump was used to fill the jugs. The type with a curved spout is made just right to set a gallon jug underneath for filling. There are 2 kinds of gallon jugs. One has a screw top, and the other has a snap top. The screw top is far superior since the lid stays on better.

For treatment, we used to use a metal stomach pump, but we had trouble keeping them working, so we started using a bilge pump, which only cost about \$15.00. They're available at most boat and marine supply stores. A trip to the hardware store to get a PVC pipe fitting, and some metal pipe fittings brought the taper from the size of the bilge pump discharge down to the inside diameter of the flared

end of a stomach tube. It works real well.

Well that's the end of my 1st talk. It didn't take quite 5 minutes I don't think. While I'm waiting for my 2nd talk to begin, I thought I'd add some information that I'm sure will be invaluable to some of you in your practices. While I was in practice, I learned that there are several things important as basic concepts to apply.

One was that it was important to hire good help. Ones that were ready to go at any hour of the night. Also ones that were dressed appropriately for the job, and that got along real well with each other. It was also handy if they didn't have weak stomachs.

Another thing is client education. You never know what level of education your clients have, so they must be talked to so that they can understand recommendations.

Milking Procedure is also an area where recommendations have to be made sometimes, hopefully for the better. Crossbreeding is also an area where veterinarians can lend valuable expertise.

After not too long in practice, I found that if your clinic wasn't too fancy, that didn't matter too much, just so you had a big parking lot, so that people didn't get into a tight place parking or turning around.

Signs are also a great service to the public, indicating what they can find there, and what sort of service they can expect.

If a clinic needs to diversify, there are several ways that can be done.

Plaster of Paris Cast as a Block Under the Good Claw in Footrot Treatment

Dr. Hugh McCampbell

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Well, it looks like it's about time for my 2nd talk to start, so I'd better address the subject "Plaster of Paris Cast as a Block under the Good Claw in Footrot Treatment."

I practiced out of a ¾ ton Supercab Ford with a ½ bed unit in it, and found that I really liked that arrangement. I had a half a bed left back there where I could haul a calf, hog, Boy Scouts, or a load of feed. The extra area behind the seat was used for dispensing items and also other equipment. I tried to carry equipment and supplies that could be used for more than one procedure, to save space. Plaster of Paris was one of these. Since I got along real well using this footrot treatment, I never started using these wooden blocks that are glued under the good claw. However, it is supposed to work real well also.

Our procedure on a mature Holstein cow was to give 0.2 cc of Rompun in the tail vein, and lay her down with 2 half hitches. After securing all 4 feet, a good sharp hoof knife was used to remove all the necrotic tissue, and open up any subsolar abscesses. I like to use exam gloves for this. They

keep everything clean; keep a veterinarian conscious of his hands, and it looks better to the client. It's just another little thing that contributes to practicing quality veterinary medicine.

I always approached footrot the same way a dentist does a tooth cavity—getting down to healthy tissue before proceeding with the treatment. Whittling away everything but healthy hoof, and exploring possible puncture tracts gets the hoof ready. When we're down to healthy hoof, we put strong iodine and a good portion of nitrofurazone salve in the affected areas, and cover them with gauze sponges. This is held in place with wraps of cast padding that cover both claws, and on up on to the pastern.

The 1st roll of plaster of paris is applied in such a manner as to hold the gauze sponges in place and cover all the cast padding on both claws and up around the pastern. ½ of the second roll is rolled off until there are 2 rolls of equal size, and they are torn apart. One ½ is soaked in water and mashed to form a block to place under the good claw. It's