# Non-Surgical Treatment of Displaced Abomasum

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I feel embarrassed to be here before you because what little I can offer on the subject of non-surgical treatment of abomasal displacement is classified by the finest as 90% quackery and 10% hope, and that doesn't leave much to the scientific world! I did not originate this deal. I use it occasionally. I am not going to imply in the least that it should be used when you are confronted with a case of displaced abomasum and the client evaluates the cow for you as one of his best, and do your best, and this would be any one of the acceptable and highly successful surgical techniques.

The type of cow that I treat without surgery is the "*average*" cow—the cow that is not worth the expense of surgery, but as long as you are there and have made your diagnosis, perhaps there is something that you can do for this average cow. It consists of the rolling technique together with medication of questionable value. We cast the cow in any way that you prefer—a nice grassy spot or box stall, some place where you are not going to end up with a cow with a knocked down hip when you get through. I like a standard squeeze method—put her on her back—accomplish this by a lariat with one end tied under the fetlock of the rear foot and the other under fetlock on the front foot—and somebody on her head to keep her there for awhile. Put her on her back with her feet up in the air. It does not matter on which side you throw her, be sure you loosen the squeeze rope because you want all kinds of mobility for the abdominal viscera while she has her feet in the air. Then just roll her gently over about a 90 degree arc for a period of one to three minutes. I stand by her chest so that I do not get clipped under the chin with the hind foot and bring her to my knee, sloping over 45 degrees and then push her back. If she flails with her hind legs, and many cows will, that is beautiful, that's just the way you want things to go! You don't want to hog-tie the cow or leave a tight band around her abdomen while you are trying to accomplish this. The principle is simple—the ingesta-filled rumen drops to the backbone; the gas distended abomasum rises, or is pushed up by the filled rumen so it is where it belongs in the sternal region, while the cow is upside down. After you have let her lie there from one to three minutes, and

particularly if she kicks and bounces around, slowly let her down on to her left side. This is the most important part of the whole procedure as far as I am concerned. If you let her go to the right side, you've defeated the whole purpose. Now, just envision that the rumen, literally hugging the backbone as you slowly roll her or allow her to come over to her left side, comes back down by gravity to the sternum. The abomasum is trapped where it belongs over on the right side. Let the cow get up. It is not uncommon to see cows, if there is feed available and they haven't eaten much for three to five days, start eating while you are removing the ropes.

Now, the disadvantages of this is, of course, that you do nothing to secure the abomasum in place. When I am batting right, which is 80% recovery not 95 like the surgeons get, things will go well for the rest of that lactation. She might or might not have the same condition recur after the next parturition.

This is a method without any expense except for my time which is valuable and certain drugs that I routinely use for what they are worth. I routinely treat the secondary ketósis with 40%, and I suppose 50% would be just as good, dextrose solution, one pint i.v. I also give some of our homemade calcium gluconate, 500 ccs, which is 20% calcium boro-gluconate, subcutaneously in four spots so we have no swellings or abscessation. If the abomasum is really atonic, I give intramuscularly some form of injectable cascara sagrada. I also give a standard dose of three bollets of digestive pills (we use Carmolax, which is simply an antiacid, magnesium hydroxide, plus most of the commercial preparations have a little strychnine) and I am old enough to want to make the cow want to live and a little strychnine never hurts anything! Ideally, I said a little strychnine, ideally, let the owner give her a daily dose for the next four to five days of this antiacid or mild laxative bollet. Really, I like two of these bollets given morning and night for the next three to five days. If the farmer is the type who will do it once and forget the rest, have him push three of them in her once a day and don't worry about the other!

I have done this over a period of about four years except one period for about six months when I got down as low as 40% total recovery, and I was about ready to give up! I have gone back to it again—for this average cow that is not worth the cost of surgery. As a preventative measure, I like to administer to this dry cow three doses of a combination of selenium and alpha tocopherol with the trade name of Bo-Se,(R) the average cow receives five ccs; the average big Holstein, seven ccs, once a week, week 3, week 2, week 1, prior to calving. Dr. Whitlock, in some work that he did in our clinic, found it was not statistically significant so he did not report it, being a scientist! He has demonstrated that there is a suggestion that these flabby abomasums have in them about the same type of a histopathological change as regular body muscle has with selenium deficiency in the so-called "white muscle disease."

QUESTION: What does Dr. Fox recommend after rolling?

DR. FOX: Anything that the cow is happiest doing. If it is pasture season, put her out. I like to get a full feed in that rumen as soon as possible and tease them with alfalfa, poor quality, good quality, pasture, anything that is available that they will take off and eat, to weight that rumen so that it gets down and holds the abomasum to the right.

QUESTION: If mono-fatty acids is one of the causes of a displaced abomasum, why are we not seeing it in feedlot cattle?

ANSWER: Good question; they are not pregnant! No, I can only imply that certainly every indication that we have suggests that parturition and the gravid uterus are certainly important in the pathogenesis, and other things that may be associated with this may be impairment of motility. Work has been done to show that all fatty acids are most important in depressing motility and increasing gas formation. I think it has to be associated with parturition almost always.

QUESTION: What is the action of lentin on the abomasum?

DR. FOX: I don't know. When I went to school we used lentin on horses, too, 1 to 4 ccs; in cows, 4 to 8 ccs, and over the years when we still could obtain it, I was disappointed with its clinical response in a cow.

QUESTION: Is there a simple field test for blood chloride level?

DR. FOX: Not that I am aware of. You are going to see very severe low chloride and potassium in abomasal problems. You may have a low potassium, especially in the chronic cases, not recognized by the farmer, that have had a displacement for several weeks. These animals have low potassium, and we routinely treat these animals with 60 to 80 grams of potassium chloride orally per day, and we seemingly get a response.

QUESTION: What was the dosage for hypokalemia?

DR. FOX: You can treat them orally at the rate of 60 to 80 grams potassium chloride. The other solution was intravenously. This is about 100 grams of ammonium chloride, 80 grams of potassium chloride, and q.s. 20 liters of fluid. We have a big plastic jug to put the granular material in and give it intravenously over a four to eight-hour period for 24 hours. If you give potassium too fast, intravenously, it can have side effects on the heart. We have given this amount of potassium over less than a four-hour period, and we have not observed any bad effects.

QUESTION: Dr. Fox, did you get 80 percent recovery the first time you rolled them or after many times?

DR. FOX: No, I have been pretty good lately! For the past eight months or so, it is the first. That is a New Yorker who asked the question. If this is 80 percent success after the tenth rolling or the first, I take it from these guys all the time! Certainly it can recur, and it does on occasion. Four days is the average; they'll be right back where they were. Then again the farmer decides—is she worth surgery, or do you want to do it again. I maintain the farmer, the client, knows more the value of his cow than any of us, regardless of how super-educated we might be!