

Squirrel the Heifer

Dr. Lance Males

It was just past lunch on Friday the 13th when one of my partners checked her phone messages after completing a farm service call. "Bob", who owned a dairy 40 km away, had a heifer in acute respiratory distress. The heifer (nicknamed "Squirrel") was due in 3 weeks and had decided to vigorously protest the routine administration of a bolus medication. Immediately afterwards, she became further panicked and exhibited very loud breathing, also known as respiratory stridor. Bob was pretty sure the bolus was lodged in her windpipe (trachea), and wanted some assistance.

During the drive, my partner called for advice, as well as briefly pulling over to locate an online resource confirming the recommended surgical approach. This was not your day-to-day, routine call! On arrival at the farm, she was able to clearly discern the sound of loud breathing through the open barn door. "Squirrel" was still alive, which was a good start. While waiting for the vet's arrival, Bob had noticed that the upper portion of the heifer's neck was firmer than normal. The bolus was indeed lodged in the upper portion of the trachea.

Initially the heifer was haltered (placing the lower loop of the halter in her mouth to help keep it open), a temporary wooden gag placed, and an attempt made to insert the vet's arm to retrieve the bolus. The bolus was nowhere to be seen in the mouth or at the entrance to the trachea. With her (thankfully small!) hand, she was able to place her hand into the opening of the trachea to try to dig deeper but the effort greatly reduced the ability of Squirrel to breathe, causing her to become even more agitated. A new plan of attack was needed.

Initial thought was that this heifer needed sedation, yet the sedative could have a depressive effect on an already taxed respiratory system. Without surgical intervention, the heifer was doomed to die. My partner elected to give a very light dose of sedation, and attached the halter to a skid steer to elevate the head and expose the upper portion of the neck. Local freezing was applied, and an incision made just below the heifers' larynx (voice box) to expose the windpipe. A cut between the hard cartilage rings, and the bottom portion of the bolus came into view! The hard plastic wings on the bolus had it firmly anchored into position, so it became a 2-person job for the removal. With the heifer now able to breathe through the hole that had just made in the trachea, the vet's arm was reinserted deeper into the trachea. The bolus could just be felt at the end of her reach. At the same time, Bob inserted his fingers into the heifer's trachea and pushed the bottom of the bolus upwards into the awaiting hand. It quickly popped free, and Squirrel's breathing returned to normal.

It was fairly anticlimactic to throw in a few stitches in the skin to decrease the size of the wound, while leaving the bulk of the hole open to heal on its own as that online resource had said to do. The heifer was put on antibiotics for a week, given an anti-inflammatory

medication, and no promises were made regarding her long-term health as this was a first for our practice. Both parties thought it was a good idea to not give Squirrel another bolus! Squirrel calved the following week (2 weeks early), and, though not setting production records, continues to show slow and steady improvement. By the next herd health, the wound had healed with some mild swelling remaining at the surgical site that will hopefully resolve with time.

There can be a significant economic and animal health benefit to routinely administering these boluses a few weeks prior to anticipated calving. Despite his “Friday the 13th” experience, Bob continues to use them in his herd.

Having dispensed thousands of these boluses, the only real issues that our practice has encountered have resulted from the cows regurgitating them. In talking with other veterinarians, a few have encountered the same issue, but the cow most often dies before the vet can get to the farm.

The manufacturer does provide ample warning on the product label to avoid the use of excessive force while administering them, but we’ve always assumed that it was to prevent damage to the back of the throat. Previously, I have missed the instruction to ensure that the animal should be swallowing when the administration tool was correctly placed prior to giving the bolus. The teachable moment in this case was that if you have an animal that is fighting you while administering a treatment, we should always wait until they settle to ensure that we can give it properly.

The author wishes to thank Dr. Crystal Throop for sharing this unique case report.

“Squirrel” approximately 1 month post surgery.

