



Vet Call

► by **Bob Larson**, professor of production medicine, Kansas State University

Cesarean Section

Cesarean section (C-section) became a standard surgery for cattle veterinarians by the early 1900s. The C-section is a very valuable surgical procedure to decrease cow and calf death loss due to a difficult birth. Although a recent survey indicated that only about 1 in 250 heifers requires a C-section (0.4%), another 7.4% required a “hard pull” for delivery, and some of these instances may have benefited from surgical correction of the difficult birth.

More positive outcomes

For veterinarians who deal with many difficult calving situations each year, the use of C-sections is common. Probably the most common indication for performing a C-section is immaturity of a heifer. In the case of a small heifer relative to calf size, C-sections will often result in a more positive (less negative) outcome.

The alternative to many C-section deliveries is a difficult, forced extraction with a calf puller — which often results in the death of the calf and severe damage to the heifer.

Other indications for doing a C-section rather than an assisted vaginal delivery that can occur in both heifers and cows are: a malposition that cannot be corrected either in a timely manner or at all, failure of the cervix to dilate, a twisted uterus (uterine torsion), or a fetal deformity that produces a monster calf.

The best outcome following a C-section is a live calf and a dam that does not have any postcalving complications and breeds back in a timely manner. The sooner after a heifer starts labor that one can identify the need for a C-section, the more likely a positive outcome will follow. If a heifer or cow has been in labor for a prolonged period of time, the likelihood of calf death, postcalving complications and delayed rebreeding are increased. To decrease the likelihood of a dead calf or nonproductive dam due to a difficult birth, the cattle should be observed frequently and stage of delivery and time when observed should be recorded to provide a mechanism whereby a lack of progress can be identified.

If a producer is experienced assisting difficult births, a heifer or cow that is not progressing should be confined in a squeeze chute or tied with a halter. Cleanliness is important, and disposable plastic sleeves should be worn to examine the birth canal.

Different veterinarians will use slightly different criteria to determine which dystocia cases should be solved with a C-section vs. vaginal delivery. I recommend that both producers and veterinarians seriously consider a C-section if they identify a problem that cannot be corrected easily (monster calf, extremely large calf for the

size of the dam, some malpresentations — particularly with a large calf) or if a delivery is not progressing after 15 minutes of assistance.

Procedure

Most veterinarians prefer potential C-section cases be brought to the veterinary clinic where appropriate facilities, equipment and trained labor are available. When that is not possible, the heifer or cow should be confined to an area with good lighting, protection from the weather and, preferably, access to electricity and running water. The surgery can be performed with the heifer

or cow either standing or lying down. Veterinary preference, estimation of the degree of animal exhaustion and other factors enter into the decision of how the surgery will be accomplished. One or two assistants are helpful. To have a good outcome, cleanliness around the surgery area is essential.

The veterinarian or assistant will clip the hair from and clean the surgery site and will inject local anesthesia so that the cow will not feel the surgery, but will remain awake. The veterinarian will cut through the skin and muscle of the abdomen and then he or she will cut open the uterus, grab the calf by the legs and pull it through the surgical opening.

Once a live calf is delivered, someone other than the veterinarian should be assigned to care for the calf while the veterinarian closes the surgery site. The cow may need intravenous therapy (IV fluids), antibiotics or special care after surgery to decrease the risk of a negative outcome.

After a successful C-section, the producer must decide whether to keep the cow in the herd. I advise producers to cull animals that had a C-section due to inadequate size of the dam or a genetic fetal deformity. I am less likely to recommend culling animals that had a C-section due to twins or a malpositioned calf.

The best outcome following a C-section is a live calf and a dam that does not have any postcalving complications and breeds back in a timely manner.

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