

Livestock Health Series

Reproductive Prolapses of Cattle

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Introduction

A prolapse is the abnormal repositioning of an organ from its normal anatomical position. Cattle occasionally develop problems with prolapses near the time of calving. Two distinct types of prolapses occur in the reproductive tract of cattle: **vaginal** or **uterine**. While both types require medical attention and correction, timing of occurrence and prognosis differ.

Vaginal Prolapse

A vaginal prolapse occurs due to increased pressure in the abdominal cavity during the latter stages of pregnancy (Figure 1). This type of prolapse is more common than a uterine prolapse and typically looks like a pink bulge of tissue ranging in size from a large grapefruit to a soccer ball. The bulge often retracts when the cow gets up and pressure is reduced. Once this tissue becomes prolapsed, it is



Figure 1. Black Angus cow with a vaginal prolapse.

exposed to environmental elements (e.g., dust, sun or manure) and to potential infectious organisms.

Vaginal prolapses are recurring problems. If a vaginal prolapse occurs and is repaired, the cow is highly likely to prolapse again next year when calving. Vaginal prolapse can be an inherited trait, making the daughter of a cow that experienced this problem likely to also suffer a vaginal prolapse in her lifetime. For this reason, cattle that have had a vaginal prolapse should be culled, and their offspring should not be used for breeding purposes. This includes bull calves, as they may pass on the unfavorable genetic trait to female offspring and propagate the problem in the herd.

Older cows, cows carrying twins or cows with Brahman (*Bos indicus*) ancestry are more prone to have vaginal prolapses. Cows limited to grazing clover pastures could also be at a higher risk of vaginal prolapse due to phytoestrogens that may be produced by that forage type. To help prevent vaginal prolapses, it is important to restrict cows from becoming overly fat during the last trimester of pregnancy. Ideally, cows should be provided a ration to keep their body condition scores between 5 and 6 at the time of calving.

Although a vaginal prolapse is not in itself considered life-threatening, it should be repaired as soon as possible. Once the vaginal tissue has prolapsed, the blood supply to the tissue is compromised. This leads to swelling, which makes it even more difficult to

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correctly reposition the exposed tissue. If the prolapse increases in size, pressure is placed on the urinary passage, subsequently restricting the ability of the cow to urinate. The large urinary bladder further hinders the ability to reposition the prolapsed vagina.

The procedure for replacing a prolapsed vagina requires restraint of the cow, preferably with a pole behind her to prevent kicking. The vaginal tissue should be cleaned with warm water and a mild disinfectant prior to placing it back into the animal to prevent irritation and/or infection. If a prolapse has been exposed for a long period of time, the tissue may be dry, damaged and inflamed, making it very difficult to perform the corrective procedure. Once the tissue is positioned correctly, several stitches can be applied around the vulva to keep the tissue in place. The cow should be able to urinate through the stitches. Near-term cows should be monitored regularly for signs of calving, as the stitches will need to be removed to prevent calving difficulty. Once the cow has given birth, the increased abdominal pressure that caused the prolapse will no longer exist, so the stitches will no longer be needed.

Uterine Prolapse

A uterine prolapse is usually seen immediately following or within a few hours of calving. Compared to the vaginal prolapse, the uterine prolapse is larger, longer (usually hanging down to the hocks when standing), deep red in color and covered with the “buttons” where the placenta was attached (Figure 2).



Figure 2. Black Angus cow with a uterine prolapse.

A uterine prolapse is considered a medical emergency. This condition is life-threatening. If the affected cow is not treated quickly, she could go into shock or die from blood loss. Contact your veterinarian for assistance with this procedure. If the uterus is pushed back improperly, it could result in internal bleeding and death of the animal.

Uterine prolapses are not heritable like vaginal prolapses. If the uterine prolapse is repaired properly, the cow may maintain a normal reproductive existence. However, a secondary infection of the replaced uterus may make the cow slow to rebreed or unable to breed back at all. Although there is no genetic predisposition to uterine prolapses, cows that have experienced a prolapsed uterus have a higher risk of prolapsing again compared to cows that have never experienced this problem.

Factors that predispose a cow to a uterine prolapse include a calving difficulty that causes injury or irritation of the external birth canal, severe straining during labor or excessive pressure applied when a calf is pulled. Other factors may include nutrition-related problems such as low blood calcium levels (more common in dairy cows) or thin cows that calve when in poor body condition. Uterine prolapses may be avoided by reducing the predisposing factors.

For more information on diseases that affect beef cattle, contact your local veterinarian.

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