Clinical Case of Uterine Prolapse in A Cow: “It is an Emergency”

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Abstract

This report documents a fatal case of uterine prolapse in a cow with poor prognosis. The cow was presented to the ambulatory unit of the University Veterinary Hospital (UVH), Universiti Putra Malaysia (UPM), with a prolapsed uterus 9 hours after parturition. Upon physical examination, the uterus was bleeding and gangrenous. Blood analysis revealed a leukocytosis with neutrophilic left shift, lymphocytosis and monocytosis. Biochemistry findings showed uremia, hypercreatinemia and hypernatremia. Based on the history and clinical evaluation, a poor prognosis was made and the animal was advised to be culled. Uterine prolapse is an emergency that should be reported as soon as possible in order to have good prognosis and prevent culling of the animal.

Keywords: Uterine prolapse, Renal disease, Hemogram, Poor prognosis.

1. Introduction

Uterine prolapse is a fairly common condition in dairy farms. It involves the complete prolapse of the uterus, vagina and cervix (Divers and Peek, 2007). The condition almost always occurs within the first 24 hours of calving and rarely reported afterwards (Blowey and Weaver, 2011; Divers and Peek, 2007). Although there are differences among different cattle to the predisposing factors associated with uterine prolapse, uterine atony, dystocia and hypocalcemia are some of the most common causes (Andrews et al., 2008). An uncomplicated case of uterine prolapse usually has a good prognosis if corrected in time, hence it should be always treated as a veterinary emergency. In an earlier study, Gardner et al. (1990), reported that the prognosis of uterine prolapse after two weeks of occurrence is good if the calf is born alive, the cow did not have stage 3 milk fever, the cow is primiparous and the case was attended to by a veterinarian. The correction of a prolapsed uterus, usually involves, disinfection and washing the organ, reduction in size of the organ if edematous with glycerol, returning the organ back and applying stay sutures (Buhner’s sutures) (Makhdoomi et al., 2014; Patal, 2014; Simon et al., 2014; Yadav et al., 2014).

Early intervention and correction of cases of prolapsed uterine tissue is very vital in ensuring a good case prognosis and survival of the cow. Poor or delayed intervention may result in bleeding, contamination resulting in infection, shock, gangrene formation and death (Andrews et al., 2008). In our previous report, we highlighted the significance of early intervention in correcting cases of vaginal prolapse (Abdullah et al., 2014a) and retained fetal membranes (Abdullah et al., 2014b) in cows. This case report highlights the dangers of improper handling of uterine prolapse, which proved to be deleterious to the cow.

2. Case Presentation

2.1 History

An adult LIDX cow was presented to the ambulatory unit of the University Veterinary Teaching Hospital with a complaint of uterine prolapse 9 hours following parturition. On examination, the cow was weak, recumbent and the uterus was completely prolapsed from the vulva. The uterine tissue was swollen, hemorrhagic and had presence of dark bluish gangrenous areas. The pulse was weak (48 beats/min), while the temperature and respiratory rate were within normal range. The mucous membrane was pale and...
there was about 10% dehydration. The farm owner had tried to correct the prolapse and failed before reporting to the hospital.

2.2 Laboratory Diagnosis

Blood was collected for hematological and biochemical evaluation. The hemogram showed leukocytosis (22.3 × 10^9/L) with neutrophilic left shift, lymphocytosis and monocytosis. Serum biochemistry results showed hypernatremia, slight hyperchloremia, ureamia and hypercreatinemia.

2.3 Management Plan

Based on the hematology and biochemistry findings, the cow has a secondary bacterial infection and mild renal impairment. Thus, the clinician advised the farmer to cull the cow due to poor prognosis resulting from the mismanagement by the farmer. The cow was advised to be culled in order to minimize the pain and suffering and for the welfare of the animal.

3. Discussion

Uterine prolapse is a seldom reported case in cattle farms, and usually occurs with the first 24 hours of calving (Divers and Peek, 2007). In some instances delayed occurrence up to 48-72 hours have been reported in buffaloes (Patil, 2014). In order to ensure a good case prognosis, early intervention is required. Delayed intervention usually results to poor prognosis of the case due to the risk of hemorrhage, shock and death (Andrews et al., 2008). In this case, the animal was presented after 9 hours of prolapse which is very prolonged. The uterus was already edematous, hemorrhagic and gangrenous. In Malaysia, the incidence of uterine prolapse in adult buffaloes in small holder farms was reported to be 2.6% (Zamri-Saad et al., 1988). Secondary bacterial infections are another complication that may arise from delayed intervention of prolapse cases (Abdullah et al., 2014b). The prolapsed organ is exposed to the environment and easily gets contaminated with soil, which harbor bacterial pathogens. In this case, the uterus was dirty and exposed to the environment for a prolonged period. Furthermore, the farm workers manipulated the uterus in order to return it, but failed to do so, resulting in lacerations on the uterine surface. The hematological profile showed evidence of bacterial infection characterized by leukocytosis with neutrophilic left shift, lymphocytosis and monocytosis. This is an indication of systemic bacterial infection (Amin et al., 2013). In addition, there was evidence of renal damage shown by increased creatinine and urea in the blood. These findings were unfavorable for a good prognosis and the animal was advised to be culled.

4. Conclusion

In conclusion, this case, reports the outcome of a fatal case of uterine prolapse in a cow. The farmer reported the case after 9 hours of occurrence. Cases of uterine prolapse are emergencies that should be promptly reported in order to ensure good prognosis and positive outcome.

References


