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Therapeutic Management of Bovine Puerperal Metritis in a Cow

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Abstract : A cow was presented with recent calving, continuous straining and expulsion of foul-smelling mucopurulent discharge from the vagina. The cases were diagnosed as puerperal metritis, sequalae to retention of placenta. The animal was successfully managed with systemic antibiotic and the uterus was washed with diluted potassium permanganate solution, along with povidone iodine & metronidazole douches and other supportive drugs. Animal responded well to treatment and recovered completely after one week of treatment.
Keywords: Cow; fetid; puerperal metritis; uterine discharge.

Introduction

Puerperal metritis is an acute systemic illness due to uterine infection and it usually occurs within 10 days after parturition. It is characterized by fetid red brown watery uterine discharge along with pyrexia (Drillich et al., 2001), reduced milk yield, dullness, inappetance or anorexia, elevated heart rate and apparent dehydration. Puerperal metritis condition is often associated with retention of placenta, dystocia and still birth. It usually occurs towards end of first week post-partum (Markusfeld, 1984 and Drillich et al., 2001). This disease condition is responsible for infertility or sub-fertility in dairy animal (Gilbert et al., 2005; Foldi et al., 2006). Barrier of cervix, vagina and vulva are compromised, providing opportunity for bacteria to ascend in genital tract leading to metritis.

Clinical History and Observation

A five-year-old HF cross bred cow was presented with the history of recent calving, reduced milk yield, decreased appetite along with continuous straining and expulsion of massive quantity of foul-smelling mucopurulent discharge from the vagina. Animal had retained placenta which was manually removed by the nearby veterinarian. Clinically, there was dehydration with increased temperature and pulse rate. Per rectal examination revealed enlarged and inflamed uterus. Copious amount of pus was expelled at the time of straining during rectal palpation. Based on history it was diagnosed as puerperal metritis and treated symptomatically.

Fig1. **Copious white colour discharge (Puerperal metritis)**

Treatment

The animal was restrained and uterine irrigation using mild lukewarm potassium permanganate solution & intrauterine douching with povidone iodine and metronidazole was performed under caudal epidural analgesia using 2% lignocaine hydrochloride @ 3ml. Animal was administered normal saline 5 litre by intravenous route, Inj. Mifex 450 ml half by intravenous route and remaining half by subcutaneous route. Subsequently, the animal was administered with

antibiotic Inj. Xceft (Ceftiofur sodium) 1 gm IM, Inj. Megludyne (Flunixin meglumine) 10 ml IM, Inj. Avil 10 ml IM for 5 days. The intensity of straining and quantity of vaginal discharge were decreased from second day onwards and the animals started taking food and water normally. Uneventful recovery was observed within five days and the milk production became normal. Animal responded to treatment from third day onwards and completely recovered after a week post treatment. Animal started taking regular feed and water.

Discussion

Metritis is defined as inflammation of both the endometrial and muscular layers of the uterus. Most of the cases occur during the first 10–14 days of delivery and sometimes it is referred as toxic puerperal metritis. Causative agent of septic metritis is similar to retention of fetal membranes (Roberts, 2004). Toxic puerperal metritis is one of the most important diseases in buffaloes with a high mortality rate postpartum (Jainudeen, 1986). Cows recovered from toxic puerperal metritis mostly develop metritis or endometritis and, in both conditions, disease become chronic (Melendez et al., 2004), causing high economic losses due to prolonged open days and prolonged inter calving interval, resulting in involuntary culling (Jainudeen, 1986; Karimi et al., 2004). The uterus is filled with odourous, red – brown content mixed with necrotic and putrefied tissues. Postpartum metritis usually follows an abnormal first or second stage of labour, especially where there has been severe dystocia. Metritis is also associated with uterine inertia, twin births, RFM, prolonged manipulations and injuries to the vulva and/ or birth canal. It has been found that up to 40 percent animals develop metritis within the first fourteen days of calving and in 10 to 15 per cent of these animal infection continues for at least another three weeks leading to a chronic uterine disease (endometritis). Puerperal metritis has been a major problem in bovine reproduction for many years. It is characterized by fetid red brown watery uterine discharge along with pyrexia (Drillich et al., 2001), reduced milk yield, dullness, inappetance or anorexia, elevated heart rate and apparent dehydration. Puerperal metritis condition is often associated with retention of placenta, dystocia and still birth. It usually occurs towards end of first week post-partum (Markusfeld, 1984 and Drillich et al., 2001). This disease condition is responsible for infertility or sub fertility in dairy animal (Gilbert et al., 2005; Foldi et al., 2006) barrier of cervix, vagina and vulva are compromised, providing opportunity for bacteria to ascend in genital tract leading to metritis.

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