

SUCCESSFUL DIAGNOSIS AND TREATMENT OF MUCOMETRA DUE TO CHRONIC UTERINE INFECTION IN A CROSSBRED JERSEY COW

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Abstract: Anestrus for past One-and-half years. On Per-Rectal Examination, no positive sign of pregnancy was palpated. On Ultrasonographic Examination, Hypoechoic mucoid filled uterus were visualized and no cystic ovaries could be visualized. OVSYNCH Protocol was followed and animal was brought to normal estrous cycle. In the subsequent estrus animal was inseminated and pregnancy was confirmed on day 60 post insemination by per-rectal examination.

Keywords: Mucometra, Cow, OVSYNCH Protocol, Ultrasonography, Anestrus, Uterine infection

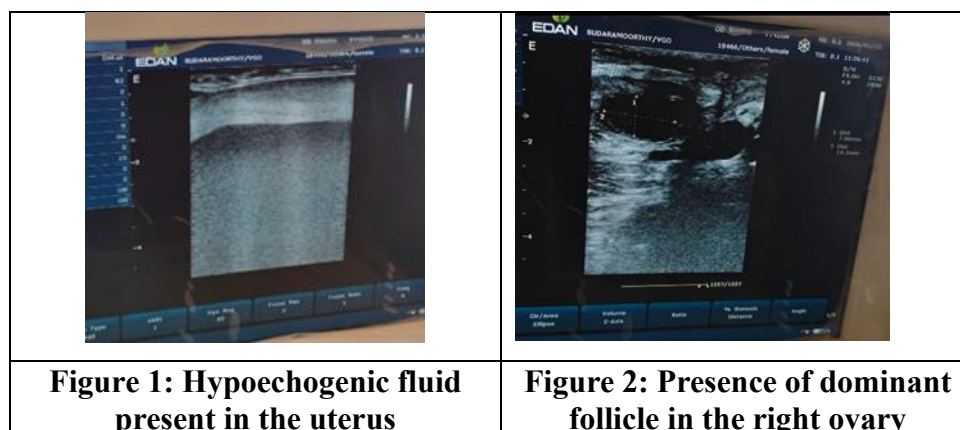
INTRODUCTION

Mucometra or hydrometra is characterized by accumulation of mucin-like substance in the uterus. Both are quite similar but differ only in degree of hydration of the mucin which may vary from watery fluid to semi solid mass (Roberts, 2004). Mucometra was reported in cattle, goats, horses and dogs with an estimated incidence of 1.78% in cows (Al-Dahash and David 1977). In ovine and caprine, mucometra is commonly associated with increased progesterone stimulation while in cow, mare and bitch it is because of increased estrogen stimulation (Roberts, 2004). In bovines, mucometra or hydrometra may occur secondary to an imperforate hymen or uterus unicornis or long-standing cases of cystic ovarian diseases or rarely with a persistent corpus luteum or due to chronic uterine infection (Noakes *et al.*, 2019). The study report depicts a case of mucometra associated with Chronic Uterine infection.

CASE HISTORY AND CLINICAL EXAMINATION

A five year old Crossbred Jersey Cow was presented to the Gynaecology unit, Veterinary Clinical Complex, Veterinary College and Research Institute, Salem with the history of anestrus for past six months. Further investigation of history revealed that animal treated for retention of fetal membrane in the last calving. Rectal examination of the animal, the

doughy uterus was palpated and no positive signs of pregnancy (placentomes, amniotic vesicle, double slipping, fetal parts) were palpated. On Ultrasonographic examination, hypoechogenic mucoid filled uterus was noticed (Figure 1) and dominant follicle of size 14mm X 9mm on right ovary (Figure 2) was visualized, only a few small and medium sized follicles were noticed on the left ovary.



TREATMENT AND DISCUSSION

Based on the history, rectal and ultrasonographic findings the case was diagnosed as long-standing case of mucometra. Treatment, Ovsynch/GPG protocol was followed. The animal was given an Intramuscular injection of 20 µg GnRH on the 0th day, 500 µg of Cloprostenol sodium Intramuscularly on 7th day and 20 µg of GnRH on 9th day. Along with hormonal therapy cow was administered with Inj. Vit AD₃E 5 ml intramuscularly on alternative day for three weeks and Inj. Streptopenicillin 5.0 gm daily for four days. Two days after Inj. Cloprostenol sodium estrus was observed but mating was avoided. Trans-rectal ultrasonography was done one month after the treatment and the uterine contents were evacuated and cow recovered uneventfully. In the subsequent estrus animal was inseminated and pregnancy was confirmed on day 60 post insemination by per-rectal examination.

Various workers ([Vahida and Jayakumar, 2000](#); [Kubar and Jalakas, 2002](#)) reports mucometra or hydrometra associated with multiple reproductive pathologies. In present case, it may be associated with uterine infection due to incomplete treatment of RFM. Chronic endometrial irritation leads to hyperplasia of endometrial glands leads to excessive mucus secretion. Administration of exogenous GnRH/LH causes luteinization of the follicle with subsequent increase in plasma progesterone concentrations. This luteinized structure can be treated with PGF₂ alpha later ([Peter, 2004](#)). Hence, in the present case mucometra was treated by GPG

(OVSYNCH) protocol for maintaining the hormonal balance and evacuation of mucoid contents and to make animal cyclical. Uterine infection checked by administration of parenteral Streptopenicillin injection and rejuvenation of uterine health by Vit AD3E injection. Cow recovered uneventfully.

CONCLUSION

The present report documented a case of mucometra due to chronic uterine infection and successful pregnancy following hormonal and adjuvant therapy.

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