

### Short Communication

## MUCOMETRA ASSOCIATED WITH CYSTIC OVARIAN DISEASE AND UTERINE UNICORNIS IN SAHIWAL COW

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Received 14 May 2018, revised 02 May 2019

**ABSTRACT:** Present study reports successful management of a case of mucometra associated with cystic ovarian follicles and uterine unicornis in a Sahiwal cow.

**Key words:** Cow, Cystic Ovarian Follicles, Mucometra, Uterine unicornis.

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 1971). Mucometra was reported in cattle, goats, horses and dogs with an estimated incidence of 1.78% in cows (Al-Dahash and David 1977). In ovines and caprine, mucometra is commonly associated with increased progesterone stimulation while in cow, mare and bitch it is because of increased progesterone or estrogen stimulation (Roberts 1971). 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 (Roberts and Fox 1968). The study report depicts a case of mucometra associated with cystic ovarian follicles and uterine unicornis in a Sahiwal cow.

### Case history and observations

A pluiparous Sahiwal cow, aged 9 years in her 3rd parity, was presented to the Veterinary Clinical Complex-Hisar, with history of continuous mucus discharge from genitalia (Fig. 1) and anestrus since last one year after parturition. Per-rectal examination revealed segmental aplasia of mullerian duct (right uterine horn was absent) associated with mucometra of left uterine horn and

enlarged ovaries. Trans-rectal real time B mode ultrasonography revealed presence of multiple cystic follicles (Fig. 2) and hyperechoic fluid accumulated in the left uterine lumen (Fig. 3). The endometrial thickness was >8 mm. So, on the basis of above findings, the animal was confirmed with mucometra associated with cystic ovarian follicles and uterine unicornis.

### Treatment and discussion

Although, segmental aplasia of mullerian duct is inherited condition that cannot be treated but as the animal was having cystic ovarian follicle the treatment was recommended keeping the farmers interest into mind. Animal was administered inj. Chorulon (MSD Animal Health, 3000 I.U, I/M) followed by inj. Vetmate (Vetcare - 2ml - I/M) after 10 days. Pulv. Chelated Agrimin Forte (Virbac India, 50gm PO BID) was advised for one month and sexual rest to the animal was advised. Two days after Inj. Vetmate estrus was observed but mating was avoided. In the next estrus animal was inseminated and pregnancy was confirmed on day 60 post insemination by per-rectal examination.

Various workers (Roberts and Fox 1968, Al-Dahash and David 1972, Vahida and Jayakumar 2000) reports mucometra or hydrometra associated with multiple reproductive pathologies. In present case, it was

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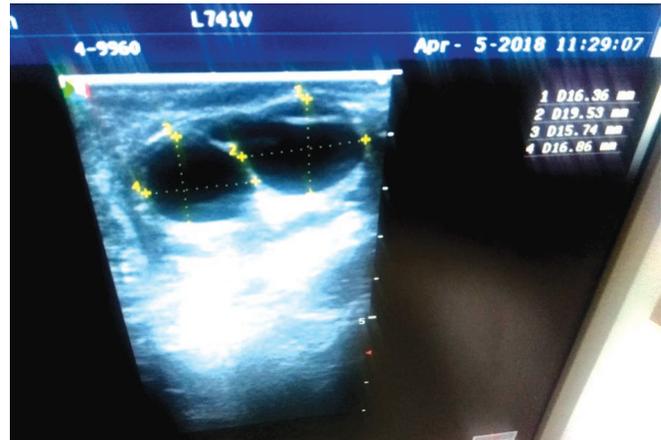
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**Fig. 1. Mucoïd discharge at the time of per- rectal examination.**

associated with cystic ovarian follicles and uterine unicornis. Cystic ovarian follicle causes constant high blood estradiol that leads to accumulation of mucin and thinning of uterine wall (Roberts and Fox 1968). Moreover, animals with segmental aplasia are sterile but in case of uterine unicornis pregnancy may occur in normal horn that was also evident in the present case as the animal had calved three times previously (Roberts 1971). Mucometra may be confused with the early pregnancy, which can be differentiated by absence of fetal membrane slip and ultrasonography. Administration of exogenous LH causes luteinization of the cyst resolving the cystic condition with subsequent increase in plasma progesterone concentrations. This luteinized structure can be treated with PGF<sub>2</sub> later (Peter 2004). In majority of cases, cystic follicles need repeated hormonal treatment because of chronicity of cases or non- responsiveness to various treatment regimes. But in present case, no treatment was given previously. Therefore, single hCG followed by PGF<sub>2</sub> resolved the The present case of mucometra associated with cystic ovarian follicles and uterine unicornis is a rare case.

**Cite this article as:** Dutt R, Singh G, Gahalot S C, Patil S S, Sharma K, Dhaka A P and Yadav V (2019) Mucometra associated with Cystic Ovarian Disease and Uterine Unicornis in Sahiwal cow. *Explor Anim Med Res* 8(2): 82-83.



**Fig. 2. Multiple cystic follicles.**



**Fig. 3. Hyperechoic fluid accumulation in the left uterine lumen.**

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