

Case Study

**THERAPEUTIC MANAGEMENT OF HYDROMETRA IN A
MALABARI DOE**

Arokia Robert M^{1*}, Shibu Simon², Kurien, M.O³ and Praveen S⁴

¹Research Assistant, Cattle Breeding Farm, Thumburmuzhy

²Assistant Professor & Head, ⁴Research Assistant
Livestock Research Station, Thiruvazhamkundu

³Professor and Head, Department of Animal Reproduction, Gynaecology & Obstetrics
College of Veterinary and Animal Sciences, Mannuthy, Thrissur

Kerala Veterinary and Animal Sciences University

E-mail: arokiarobert@gmail.com (**Corresponding Author*)

Abstract: A case of hydrometra in a Malabari doe is detailed in the present report. The doe was presented to the hospital with a distended abdomen and was bred five months back. Ultrasonographic examination revealed the presence of anechoic fluid occupying the entire uterus as large sacculations and were separated by thin trabeculae. Placentomes and embryonic or foetal structures were absent. The condition was diagnosed as hydrometra. Two doses of cloprostenol at the rate of 100 µg intramuscularly were given at 12 days interval and the doe recovered uneventfully.

Keywords: Anoestrus, hydrometra, pseudopregnancy, corpus luteum.

INTRODUCTION

Hydrometra is one of the important causes of anoestrus in dairy goats. It is characterized by a pathological condition of the uterus in which aseptic fluid accumulates in the lumen with persistent corpus luteum. This uterine condition is also called pseudopregnancy (Pieterse and Taveme, 1986). The incidence of hydrometra or pseudopregnancy in goat was reported from two to six percent (Malher and Younes, 1987) and is often noticed in goats whether they have been mated or not (Matthews, 1991). This condition forms a major cause of subfertility in goats and occurrence of pseudopregnancy on a commercial farm of dairy goats causes substantial economic loss. The present case records the ultrasonographic diagnosis and successful medical management of hydrometra in goat.

CASE HISTORY AND OBSERVATION

A four years old pluriparous Malabari goat was brought to the University Veterinary Hospital, Kokkalai for pregnancy diagnosis. The owner reported that the animal was showing a distended abdomen (Fig. 1) and that the animal was bred by natural service five months

before. On abdominal palpation, there was no evidence of foetal structures or any palpable mass in the abdominal cavity.

Transabdominal ultrasonographic investigation was performed with the goat on left lateral recumbency. Ultrasonographic examination revealed highly distended uterine horns with large anechoic areas as circumscribed crosssections (sacculations). The anechoic fluid compartments were separated by thin trabeculae probably due to coiling and kindling of the uterine horns (Fig. 2). Further, absence of maternal caruncles and embryonic/foetal structures reflected that it was a non-gravid uterus filled with fluid. Based on the results of ultrasonographic observation, the condition was diagnosed as pseudo pregnancy or hydrometra.

TREATMENT AND DISCUSSION

The goat was administered 100µg of PGF_{2α} analogue cloprostenol (CLOSTENOL, Zyclus AHL) intramuscularly. On day two post treatment, large quantity of clear mucous discharge was voided through the vaginal passage and reduction in abdominal distension was reported. Second injection of cloprostenol at the same dose was given after 12 days. Following the second dose, the animal displayed behavioural signs of oestrus on third day. The result of the present study is in agreement with Pieterse and Taverne (1986), who reported that a single administration of PGF_{2α} was not sufficient to completely evacuate the fluid present in the uterus and to reduce the recurrence of the condition. Moreover, Hesselink (1993) and Simon *et al.* (2010) have reported that the double injection regime within an interval of 12 days significantly increased the reproductive performance in goats. Taverne *et al.* (1995) inferred that accumulation of fluid is the result, rather than the cause of the persistence of the corpus luteum and that the disturbances in either the luteotropic or luteolytic mechanism during the ovarian cycle play an important role in the aetiology of hydrometra.

To conclude, ultrasonography is found to be rapid, useful and reliable tool for early diagnosis of hydrometra in goat and the condition could be treated successfully with double injection of cloprostenol at 12 days interval.

References

- [1] Hesselink, J.W. 1993. Hydrometra in dairy goats: reproductive performance after treatment with prostaglandins. *Vet. Rec.* **132**: 186-187.
- [2] Malher, X. and Younes, A.B. (1987). Les facteurs zoo techniques de l'infécondite dans l'espece caprine. *Recueil de Médecine Veterinaire*, **163**: 831-838.

- [3] Matthews, J.G. 1991. Outline of clinical diagnosis in the goat. Wright-Butterworth-Heinmann, oxford, England, pp. 6-7.
- [4] Pieterse, M.C. and Taverne, M.A.M. (1986). Hydrometra in goats: diagnosis with real-time ultrasound and treatment with prostaglandins or oxytocin. *Theriogenology*.**26**: 813-821.
- [5] Simon, S., Vergis, J., Krishnan, G.S., Arun, A., Vishnuraj, M.R., Rekha, V. and Renjith, R. 2010. Pseudopregnancy in goat. *J. indian. Vet. Assoc.* **8**: 17-19.
- [6] Taverne, M.A.M., Hesselink, J.W., Bevers, M.M., van Oord, H.A. and Kornalijnslijer, J.E. 1995. Aetiology and endocrinology of pseudopregnancy in the goat. *Reprod. Dom. Anim.***30**: 228-230.



Fig.1. The goat with abdominal distension



Fig.2. The B-mode ultrasonographic image showing anechoic areas separated by hyperechoic thin tissue wall (trabeculae)