International Journal of Livestock Research, Vol. 15 (10-12) Oct-Dec' 2025
http://www.ijlr.org
eISSN: 2277-1964
NAAS Score:4.31

Case Report

Follicular Cyst in White Himalayan Goat - A Case Report

Akshay Sharma[1], Pururava Sharma[2], Depika Thakur[3*], Dawa Yangka[4], Pravesh Kumar[5] and Pankaj Sood[6]

[1]Assistant Professor, Department of Veterinary Gynecology and Obstetrics, DGCN College of Veterinary and Animal Sciences, CSKHPKV, Palampur – 176062, Himachal Pradesh, INDIA
[2]Veterinary Officer, Department of Animal Husbandry, Himachal Pradesh, INDIA
[3]Assistant Professor, School of Veterinary Sciences, Abhilashi University, Chailchowk, Mandi-175028, Himachal Pradesh, INDIA
[4]Veterinary Officer, Ministry of Agriculture and Livestock, Royal Government of Bhutan, BHUTAN
[5]Assistant Professor, Department of Veterinary Gynecology and Obstetrics, DGCN College of Veterinary and Animal Sciences, CSKHPKV, Palampur – 176062, Himachal Pradesh, INDIA
[6]Professor and Head, Department of Veterinary Gynecology and Obstetrics, DGCN College of Veterinary and Animal Sciences, CSKHPKV, Palampur – 176062, Himachal Pradesh, INDIA

*Corresponding Author: depikathakur144@gmail.com

How to cite this paper
Sharma, A., Sharma, P., Thakur, D., Yangka, D., Kumar, P., & Sood, P. (2025). Follicular Cyst in White Himalayan Goat: A Case Report. *International Journal of Livestock Research*, 15(10-12), 34 – 37.

Received : Jun 17, 2024
Accepted : Dec 17, 2025
Published : Dec 31, 2025

Copyright @ Sharma *et al.*, 2025

This work is licensed under the Creative Commons Attribution International License (CC BY 4.0). http://creativecommons.org/licenses/by/4.0/

Open Access

Abstract

A two-year-old primiparous White Himalayan goat exhibited persistent estrus behavior for 5 – 6 weeks, characterized by tail wagging, vocalization, vulvar discharge and repeated acceptance of the male. Trans-rectal ultrasonography revealed a fluid-filled anechoic structure (>10 mm) with multiple small follicles on one ovary and absence of corpora lutea on both ovaries, confirming the diagnosis of a follicular cyst. A therapeutic protocol comprising human chorionic gonadotropin (hCG) on days 0 and 5, prostaglandin F2 α (PGF2 α) on day 11, and gonadotropin-releasing hormone (GnRH) at the onset of estrus was implemented. Nymphomaniac behavior subsided within 24 – 36 hours of hCG administration and estrus was observed 60 hours after PGF2 α treatment. The doe was successfully re-bred and conception was confirmed via trans-rectal ultrasonography 35 days post-mating. This case underscores the value of trans-rectal ultrasonography for diagnosis and monitoring, and the effectiveness of combined hormonal therapy in the successful management of follicular cysts in goats.

Keywords: Cyst, Nymphomania, White Himalayan Goat.

Introduction

In farming systems, the marginal farmers rely on goat production as one of their primary alternate sources of revenue via meat, milk, and wool (Metawi *et al*., 2013). Different malady associated with negative impact on flock production include the reproductive wastage, accounting for an overall incidence of 11.50% (Goel and Sinha, 2005). In literature cited, various conditions viz. hydrometra (Mario *et al*., 2022), ovarian cysts (Moreira *et al*., 1991) and pseudopregnancy (Hesselink, 1993); Taverne *et al*., 2022) contribute approximately 50, 12 and 2-15%, among all reproductive malady. While focusing on ovarian cysts in goats, follicular cysts, characterized as a fluid filled, thin-walled ovarian structure >10 mm in diameter persisting for more than 10 days, often result in serious economic problem as affected goats without treatment remain barren until the next breeding season (Medan *et al*., 2004; Souza *et al*., 2013). Although, its incidence in goats is comparable to cattle, but difficulty in diagnosis due to inability in carrying out rectal palpation (Moreira *et al.*, 1991), has created a dearth of knowledge regarding the diagnosis and management (Medan *et al*., 2004). In the recent years, the increasing use of trans-rectal sonography has aided the diagnosis of ovarian cysts (Balaro *et al*., 2022) and thus, regarded as gold standard for accurate detection of ovarian cysts in goats (Medan *et al.*, 2004).

A two-year-old primiparous White Himalayan goat (weighing 45kg) was presented during the month of July with anamnesis of persistent estrus (nymphomaniac signs) from 5-6 weeks. The estrus behavior observed by owner were wagging of tail, genital discharge, acceptance to male and continuous vocalization and thus, goat was bred 8-10 times. Feeding, urination and defecation of the goat was normal. On clinical examination, the goat was bright, alert and responsive with moist and swollen vulva. Considering the history, trans-rectal ultrasonography was performed using a 5.0 MHz transrectal probe (Mindray 25; VETMODEL 75L50EAV) to assess the ovarian status.

Trans-rectal sonography revealed the anechoic structure having diameter > 10 mm with echogenic boundary was found on the one ovary (Fig. 1 & 2) along with multiple small follicles. On the contralateral ovary, small luteinized follicles were observed along with absence of corpora lutea on both the ovaries. Consecutive examinations were conducted at 5-day interval on three occasions (day 0, 5, 10) and in all instances, an anechoic structure measuring > 10 mm in diameter was observed on the same ovary. For treatment, hCG (Inj. Chorulon 1000 IU, IM) used as a luteinizing agent was administered intramuscularly at day 0 and 5, followed by administration of $PGF_{2\alpha}$ analogue (Inj. Pragma 200 µg, IM) 11 days later (Fig. 3). The nymphomaniac signs disappeared 24-36 hours after hCG administration whereas signs of estrus were recorded by owner 60 hours after $PGF_{2\alpha}$ injection. To ensure ovulation, GnRH analogue (Inj. Gynarich 6 µg, IM) was administered at the onset of estrus. Re-breeding was advised during next estrus and goat conceived with single embryo confirmed by trans-rectal sonography at 35 days after breeding.

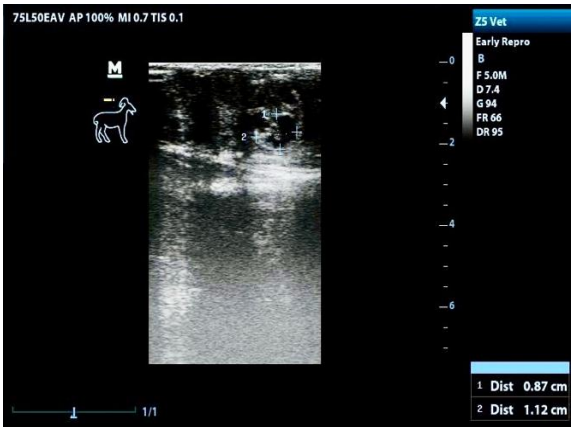

Fig. 1: Sonographic image of follicular cyst (Diameter-10 mm; Boundary marked by +)

Fig. 2: Sonographic image of follicular cyst (Diameter-10 mm; Boundary marked by 0)

Protocol Adopted

The current therapeutic approaches for follicular cysts in goats are largely adapted from bovine protocols. GnRH analogues are most commonly used, as they stimulate luteinization and potential ovulation of cystic follicles by triggering an LH surge (Stastna and Stastny, 2012). In cases where GnRH alone proves insufficient, combination protocols involving $PGF_{2\alpha}$ have shown increased efficacy. $PGF_{2\alpha}$ aids in luteolysis if any luteal tissue is present or

to regulate cyclicity after ovulation of luteinized cysts (Souza *et al*., 2013).

Furthermore, human chorionic gonadotropin (hCG), due to its LH-like action, has been shown to be an effective alternative, especially when administered in sequential protocols. Other attempts made to treat of follicular cysts in goats include GnRH- Prostaglandin $F_{2\alpha}$ ($PGF_{2\alpha}$) (Medan *et al*., 2004; Khan *et al*., 2016). According to Souza *et al*., 2013, 500 IU hCG was ineffective in luteinizing ovarian cysts and restoring ovarian function. Therefore, in the present case, 1000 IU hCG was administered, which resulted in luteinization of the follicular cyst. Albeit, the literature using 1000 IU hCG for luteinization is deficit.

Conclusion

In peroration, the trans-rectal sonography was an implicit tool in diagnosis of follicular cyst and human Chorionic Gonadotrophin in adjunction with Prostaglandin $F_{2\alpha}$ treatment proved to be effective in successful management of follicular cyst in goats and restoration of fertility.

Contribution by Authors

All the authors contributed equally to writing the manuscript. The final manuscript was read by all authors and consented to publication.

Conflict of Interests

There is no conflict of interest.

Publisher Disclaimer

IJLR remains neutral concerning jurisdictional claims in published institutional affiliation.

References

1. Balaro MFA, Cosenteno IO, Riberio ACS, Brandao FZ (2022). Ultrasound Diagnosis in Small Ruminants: Occurrence and Description of Genital Pathologies. V*eterinary Science*, 9(11): 599.
2. Goel AK, Sinha NK (2005). Studies on the incidence and causes of infertility in goats reared under field conditions. *The Indian Journal of Animal Reproduction*, 26: 64-65.
3. Khan MI, Ejaz M, Rehman A, Mohsin I, Hassan M, Ahmad N and Kausar (2016). Diagnosis of Ovarian Follicular Cyst in a Beetal Goat by Ultrasonography and Treatment with GnRH-PGF2α. *Pakistan Veterinary Journal*, p: 53-58.
4. Medan MS, Watanabe A, Sasaki K, Tayaa K (2004). Transrectal ultrasonic diagnosis of ovarian follicular cysts in goats and treatment with GnRH. *Domestic Animal Endocrinology*, 27: 115–124.
5. Metawi H, Hamdon, Hatem M and Abbas S (2013). Importance of small ruminants for household's farm income in the new valley governorate. *Journal of Animal and Poultry Production*, 4: 675-682.
6. Simoes J, Gérard, Azeved J and Mascarenha R (2009). Ovarian cysts (persistent follicles) and ultrasonographic texture Baril of uterus in a nulliparous and a primiparous goat. *Veterinaria.com*. 1.
7. Mário FAB, Isabel OC, Ana CSR and Felipe ZB (2022). Ultrasound Diagnosis in Small Ruminants: Occurrence and Description of Genital Pathologies. *Veterinary Sciences*, 599-608.
8. Moreira ELT, Nascimento EFD, Chquiloff MAG and Dodascimento EF (1991). Morphological alterations in the ovaries and uterus of *Capra hircus*. L1 regressive alterations. *Arguivos da Escola de Medicina Veterinaria da Universidade Federal de Bhia* 14:25–39.

9. Taverna M (2022). Pseudopregnancy in goats. MSD Manual *Veterinary Manual*.
10. Hessilink JW (1993). Incidence of hydrometra in dairy goats. *Veterinary Record*, 132 (5): 110.
11. Souza JMG, Torres CAA, Maia ALRS, Brandao FZ, Bruschi JH, Viana JHM and Fonseca JF (2011). Autoclaved previously used intravaginal progesterone devices induce estrus and ovulation in anestrous Toggenburg goats. *Animal Reproduction Science*, 129: 50-55.
12. Stastna D and Stastna P (2012). Efficiency of treatment of follicular cysts in cows. *Slovak Journal of Animal Sciences* (4): 118-122.

****