

UNILATERAL UTERINE HORN ADHESION IN A CROSSBRED HEIFER

S. Prakash^{*1}, S. Raja², V. Prabakaran³ and S. Satheshkumar⁴

Department of Veterinary Gynaecology and Obstetrics
Veterinary College and Research Institute
Tamil Nadu Veterinary and Animal Sciences University
Orathanadu - 614 625, Thanjavur, Tamil Nadu

ABSTRACT

A Jersey crossbred heifer was presented to the Gynaecology Unit of Veterinary Clinical Complex, Veterinary College and Research Institute, Orathanadu for pregnancy diagnosis. Rectal examination revealed rigid cervix and flaccid uterine horns. Further examination revealed that left uterine horn was adhering with the adnexa like a firm mass and unable to retract. However, the right uterine horn and both the ovaries were free of adhesions and were easily movable. Ultrasonographic examination revealed left uterine horn was curled and there was synechiae as evidenced by dense hyperechoic bands around the contours of left uterine horn which confirm the unilateral left uterine horn adhesion.

Keywords: Heifer, Jersey, Ultrasonography, Uterine adhesion

Received : 28.06.2021

Revised : 15.07.2021

Accepted : 27.09.2021

Introduction

Heifer management plays a vital role in economy of the dairy farm since they are considered as breeding replacement stocks. Various congenital and acquired reproductive disorders such as vulval stenosis, schistosomus reflexus, persistent hymen, hydrallantois were recorded in nulliparous heifers (Prakash *et al.*, 2014, 2017, 2018; Satheshkumar *et al.*, 2020). The incidences of ovario-bursal adhesion were

recorded previously in primi- or pluriparous buffaloes (Joearosh *et al.*, 2000; Azawi and Ali, 2015) and cattle (Selvaraju *et al.*, 2020), but reports in heifers are scanty (Satheshkumar *et al.*, 2019). However, perusal of literatures lacked reports of uterine horn adhesion in nulliparous animals. The present report places on record a case of unilateral uterine horn adhesion in a Jersey crossbred heifer.

Case history and observation

A Jersey crossbred heifer (4 years) was presented to the Gynaecology Unit of Veterinary Clinical Complex, Veterinary College and Research Institute, Orathanadu

Corresponding author Email id: prakashsmile80@gmail.com

¹ Assistant Professor

² Assistant Professor

³ Assistant Professor

⁴ Professor and Head

for pregnancy diagnosis with the history of being inseminated five months back. Per rectal examination revealed rigid cervix and flaccid uterine horns. On further investigation, it was found that the left uterine horn was adhering with the adnexa like a firm mass and unable to retract. However, the right uterine horn and both the ovaries were free of adhesions and were easily movable.

Ultrasonographic examination revealed that the left uterine horn was curved and there was synechia as evidenced by dense hyperechoic bands around the contours of left uterine horn (Fig.). No evidence of fluid accumulation or scarified tissue could

be observed within the lumen of the affected uterine horn, but a hyperechoic region was found in the central region of the curled horn which might be indicative of thick band of adhered tissue. The right uterine horn and both the ovaries showed normal echogenicity without any signs of adhesion. Both ovaries had multiple small and medium sized follicles, without any evidence of luteal structure, indicative of acyclicity.

Treatment and discussion

Based on the observations, the condition was diagnosed as unilateral left uterine horn adhesion, which might be due to two major reasons viz., congenital or acquired.



Fig. Curved uterine horn with dense hyperechoic bands around the contours and in the central region indicative of uterine adhesion

Congenital segmental aplasia of uterine horns was usually accompanied by fluid accumulation (Morris *et al.*, 1999), but in the present case distension of the uterine horn was not observed. Hence, the congenital cause of the condition was ruled out. Uterine adhesions due to perimetritis and parametritis are usually caused by trauma or rupture of the uterus at the time of calving (Roberts, 1971; Tani *et al.*, 2015). Based on the slaughter house studies, Azawi *et al.* (2008) recorded perimetritis in 1.5 per cent of slaughtered buffalo cows characterized by increased thickness of uterine serosa.

Tani *et al.* (2015) suggested that inflammation of myometrium might extend to perimetrium leading to adhesions. All the previous reports were recorded in pluriparous animals. Thus, the present case was unique being recorded in a heifer. Based on the previous literature the unilateral uterine horn adhesion might have occurred as a sequel for perimetritis which could be a result of faulty per-rectal gynaeco-clinical examination by unskilled quacks at previous examinations. The breeding potential of the animal was questionable with the chances of conception being low and could only conceive when ovulation occurred in the right ovary with right horn pregnancy. Hence, it was suggested to follow standard operation procedure of gentle handling during per rectal examination in order to avoid such irreparable losses.

ACKNOWLEDGEMENT

The authors thank the Dean, Veterinary College and Research Institute, Orathanadu and the Director of Clinics, TANUVAS,

Chennai -7 for their support in documenting the report.

REFERENCES

- Azawi, O. I., Ali, A. J. and Lazim, E. H. (2008). Pathological and anatomical abnormalities affecting buffalo cows reproductive tracts in Mosul. *Iraqi Journal of Veterinary Sciences*, **22**(2):59-67.
- Azawi, O.I. and Ali, A.J. (2015). A study on the prevalence of pathological abnormalities of the ovaries and oviducts diagnosed at post mortem of buffaloes in Mosul. *Buffalo Bulletin*, **34**(1):51-62.
- Joearosh, A., Narayanan, K., Selvaraju, M., Balasubramanian, S., Kathiresan, D. and Devanathan, T.G. (2000). Unilateral tubo-ovarian cyst with bilateral ovario-bursal adhesion and perimetritis in a buffalo. *Indian Journal of Animal Sciences*, **70**:43-44.
- Morris, L.H.A., Fairies, J., Chenier, T. and Johnson, W.H. (1999). Segmental aplasia of the left paramesonephric duct in the cow. *Canadian Veterinary Journal*, **40**:884-885.
- Prakash, S., Selvaraju, M., Ravikumar, K. and Ezakial Napoleon, R. (2014). Clinical management of hydrallantois in a heifer. *Intas Polivet*, **15**(2):215-216.
- Prakash, S., Selvaraju, M., Ravikumar, K. and Palanisamy, M. (2017). Dystocia due to Schistosomusreflexusfetus in

- heifers - A report of two cases. *Indian Veterinary Journal*, **94** (2):79 – 80.
- Prakash, S., Selvaraju, M., Ravikumar, K., Palanisamy, M., Manokaran, S. and Ezakial Napoleon, R. (2018). Hydrallantois complicated with fetal ascites in a primiparous graded Murrah buffalo. *Buffalo Bulletin*, **37**(1):97-100
- Roberts, S.J. (1971). *Veterinary Obstetrics and Genital Diseases*. 2ndedn, CBS Publishers and Distributors, Delhi, pp.485.
- Satheshkumar, S., Raja, S. and Rajasundaram, R.C. (2019). Ultrasonographic diagnosis of ovario-burso-tubal cyst in a heifer. *Intas Polivet*, **20**(1):69-70.
- Satheshkumar, S., Raja, S., Senthilkumar, S., Prabakaran, V., Rajkumar, R., Saravanan, M. and Premalatha, N. (2020). Persistent hymens with mucous accumulation in a crossbred heifer. *Indian Journal of Veterinary & Animal Sciences Research*, **49**(1):51-54.
- Selvaraju, M., Prakash, S., Varudharajan, V., Ravikumar, K., Palanisamy, M., Gopikrishnan, D., Senthilkumar, K. and Manokaran, S. (2020). Obstetrical disorders in farm animals: A review. *The Pharma Innovation Journal*, **9**(9):65-74.
- Tani, C., Tomokawa, K., Hemmi, K., Kobayashi, I., Kitahara, G., Katamoto, H. and Tani, M. (2015). Six types bovine uterine enlargement and their outcomes monitored using mobile ultrasonography. *Journal of Warm Regional Society of Animal Science*, **58**:179-187.