

## Case Study

### A Case Report of Persistent Hymen in Murrah Buffalo (*Bubalus bubalis*)

Deepak\*, Hanuman Prasad Yadav, Laishram Kipjen Singh,  
Dinesh Kumar Badsiwal and Umed Singh

Department of Veterinary Gynaecology and Obstetrics, International Institute of Veterinary Education and Research, Bahu Akbarpur, Rohtak, Haryana-124001, India

\*Corresponding author

#### ABSTRACT

A rare case report of complete persistence of hymen in a nulliparous Murrah buffalo aged 4.0 years with a body condition score 3.0 presented with a history of repeat breeding. The buffalo came in the Veterinary Clinical Complex, International Institute of Veterinary Education and Research, Bahu Akbarpur, Rohtak, Haryana. The condition of the persistent hymen was diagnosed on clinical examination of the animal and treated successfully.

#### Keywords

Murrah buffalo,  
Nulliparous,  
Persistent hymen

#### Introduction

The hymen is formed from the epithelial lining of paramesonephric ducts and the urogenital sinus at the vestibulo-vaginal junction (Roberts 1971). The hymen is formed between the anterior two-thirds or more of the vagina. Canalization of the hymen is usually complete at birth and leads to communication between the lumen of the caudal vagina and vestibule (Roberts, 1971).

Persistent hymen condition was observed by Rajkonwar (1975) in a crossbred heifer and Gupta and Sharma (1973) in a buffalo heifer. The complete blockage results in accumulation of uterine and cervical secretion and formation of mucometra, mucocervix and mucovagina (Parkinson, 2001). The present case report deals with the treatment of imperforate hymen in a Murrah buffalo.

#### History and clinical observations

A four-year-old Murrah buffalo (*Bubalus bubalis*) was brought to the Veterinary Clinical Complex, International Institute of Veterinary Education and Research, Bahu Akbarpur, Rohtak, Haryana, with the history of showing estrus signs at regular interval of 20-21 days and repeat breeding. The signs of estrus such as frequent micturition, vulval edema and restlessness were noticed by the owner at the time of estrus. During mounting, the bull could not perform intromission. Per-rectal examination revealed the formation of a pouch in the caudal vagina just cranial to the external urethral orifice. All the internal and external genitalia were normal, however, on per-vaginal examination, a thick muscular band was palpated which was diagnosed as imperforated hymen cranial to the external urethral orifice.

## Treatment and Discussion

The buffalo was given epidural anaesthesia with 2% lignocaine HCL and then restrained in the travis. The hymen membrane was punctured with artificial insemination gun guarded by finger and the hole was dilated to its maximum by digital pressure. Around 1000-1500 ml of cloudy discharge with blood clots was drained through the vagina. Thereafter, the vagina was flushed with

diluted KMnO<sub>4</sub> (Potassium permanganate ratio of 1:1000) solution. Gentamycin ointment along with lignocaine jelly was applied locally over the perforated area along with antibiotic-gentamicin @ 4 mg/kg body weight (total dose 2000mg), NSAIDS-melonex @ 0.3 mg/kg body weight (total dose 150 mg) and antihistamines @ 1.5 mg/kg body weight (total dose 750 mg) are given by intramuscular route for three days once in a day.

**Fig.1**



**Fig. (A)** Cloudy mucus like fluid evacuated from vagina  
**(B)** Cloudy mucus with blood tinge

## References

- Gupta, S. K., and Sharma, R. D. 1973. Imperforate hymen and persistent hymen in Murrah buffalo heifers - a record of three cases. *Indian Vet. J.*50:940-943.
- Kumar, B., Krishnappa, B., Das, G. K., Sharma, G. C., Yadav, D., and Jan, M.H. 2016. Imperforate hymen and subsequent secondary pyometra, pyocervix and pyovagina in Murrah Buffalo Heifer: A case report. *Buffalo Bulletin* 35:19-21.
- Phogat, J. B., Chandolia, R. K., and Gupta, S. L. (1973). Persistent hymen in murrah buffalo heifers. *Indian Vet. J.*70:75.
- Rajkonwar, C. K. 1975. A case of persistent hymen in a cross bred heifer. *Indian Vet. J.*52: 592.
- Roberts, S. J. 1971. *Veterinary Obstetrics and Genital Diseases.* (2nd edn.), CBS Publishers and Distributors, Delhi. 460.