Cystitis in an Adult Buffalo—A Case Report

B. Sudhakara Reddy*, Y.V. Pridhvidhar Reddy, S. Sivajothi
Department of Veterinary Clinical Complex, College of Veterinary Science, Proddatur,
Sri Venkateswara Veterinary University, Andhra Pradesh, India

Abstract
An adult buffalo with history of fever, anorexia, and frequent urination with turbid urine for two days was presented to the hospital. Microscopic examination of urinary sediment revealed presence of pus cells, erythrocytes, bacteria and desquamated epithelial cells. Haematology revealed leukocytosis with neutrophilia. Concentrations of blood area nitrogen and serum creatinine were higher than normal values. Ultrasonography examination revealed presence of mixed echogenic contents with hyperechogenic bladder wall. Based on the clinical, laboratory examination and ultrasonography examination present case was diagnosed as cystitis. Buffalo was successfully treated with inj. amoxicillin and cloxacillin along with symptomatic therapy for five days.

Keywords: Buffaloes, Cystitis, Urine, Ultrasonography

*Author for Correspondence E-mail: bhavanamvet@gmail.com

INTRODUCTION
Bovine cystitis is an inflammation of the urinary bladder of cattle. The condition is sporadic and worldwide in distribution [1]. The organisms colonize the mucosal lining of the bladder and ureters usually due to stress caused by the parturition, peak lactation and high protein diet [2]. Buffaloes exhibit discomfort by frequent attempts to urination, anorexia, loss of production, colic with restlessness, tail switching, polyuria and pyuria. Present communication reports about the ultrasonographic confirmation of the cystitis in a buffalo and its successful management.

CASE HISTORY AND OBSERVATION
An adult buffalo was presented to the Teaching Veterinary Clinical Complex, College of Veterinary Science, Proddatur with the history of frequent urination and turbid urine for two days. Further history revealed that animal was calved six months back and had two unsuccessful inseminations. Initially passing of cloudy urine and followed by light colour urine was observed during urination. Buffalo had normal feeding and defecation except mild straining while urination. Clinical parameters including temperature (101°F), respiration (18 per minute), heart rate (72 bpm) and ruminal motility (1/3 min) were within the normal range. Rectal examination revealed non-gravid uterus and passing of cloudy urine while examination. Trans-rectal ultrasonographic examination revealed presence of mixed echogenic contents with hyper echogenic bladder wall (Figure 1). Whole blood, serum and urine were collected for laboratory examination.

There was no traces of parasites in wet blood films and Giemsa stained blood smears. Uristic examination of urine revealed the presence of protein, leucocytes, ketone bodies and alkaline pH (8.5) (Figure 2). Haematology

Fig. 1: Ultrasonography of Bladder—Double Layered Appearance of Bladder Wall.
revealed, normal haemoglobin (9.8 g/dL), total erythrocyte count (4.67X10^6/µL), packed cell volume (34%), higher total leucocyte count (14400/µL) with neutrophilia (4200/µL). High levels of blood urea nitrogen (52 mg/dL) and creatinine (1.85 mg/dL) were noticed [3]. Microscopic examination of stained urinary sediment revealed presence of pus cells, erythrocytes, desquamated epithelial cells and bacteria.

**Fig. 2: Dipstick Uristic Examination of the Urine.**

**TREATMENT AND DISCUSSION**

Based on the clinical and laboratory findings the case was diagnosed as a case of cystitis. Buffalo was treated with Intamox inj (2.5 g I.M. BID, for 5 days), DNS (1000 ml, I.V. for 3 days), Maxxitol inj (15 ml, I.M. for 3 days) and chlorpheniramine maleate inj (15 ml, I.M. for 2 days). Urinary acidifier was advised (ammonium chloride @ 50 mg/kg body weight, PO, BID) to maintain the acidic environment in the urinary bladder. After three days of therapy, animal was active and urination was normal and no straining was noticed. Urine was free from abnormal colour by the fourth day and after seven days of therapy urine was free from microscopic abnormalities.

Inflammation of bladder occurs mainly due to ascending or descending infection. In cystitis the urine becomes turbid due to presence of desquamated epithelial cells of the bladder in urine where as in other cases haemorrhages in the bladder may lead to haemorrhagic cystitis. In the present case turbid urine was observed due to presence of high epithelial cells in the urine [4]. In the present case study, diagnosis was made based on the urine colour, per rectal examination, ultrasonography and microscopic examination of the urine sediment [5]. In the present case course of antibiotic was advised for the period of 5 days to prevent the recurrence [4]. Recurrence of infection is usually due to failure to eliminate foci of infection in the accessory gland and in the bladder wall. In the present case urinary acidifier was advised to alter pH of urinary bladder along with daily intravenous administration of fluids.

**ACKNOWLEDGEMENT**

The authors acknowledge the authorities of Sri Venkateswara Veterinary University, Tirupati for providing facilities to carry out the present work.

**REFERENCES**


**Cite this Article**