

## Pneumovagina in A Buffalo: A Case Study

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### Abstract

*The present communication reports a case study on pneumovagina in a buffalo associated with froathy urine and uterine discharges. Condition was diagnosed on the basis of per rectal and clinical examination. It was treated with course of antibiotic and other supportive therapy. The buffalo was free from infection after 20 days of therapy, but recurrence was noticed after six months of therapy.*

**Keywords:** *Bubalus bubalis, pneumovagina, metritis, repeat breeder*

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### INTRODUCTION

Pneumovagina is a condition of sucking air into vagina and is commonly noticed in horses [1, 2]. The air is evacuated actively by straining due to irritation caused by the air or passively by movements of the animal. Previously prevalence of pneumovagina was reported in dairy cattle. The present case report describes pneumovagina in a buffalo which is a repeat breeder.

### CASE HISTORY AND OBSERVATIONS

A pleuriparous buffalo aged between 6–7 years weighing approximately 350 Kg was presented to the clinic with a history of straining while urination for the previous 20 days. It was calved seven months before and considered as a repeat breeder after four unsuccessful services. The animal was partially anorectic with normal rumination. On clinical examination, vital parameters were within normal physiological range. In order to detect air in the vagina, manual pressure was applied dorsally from the rectum to the vagina from cranial to caudal. During this manipulation, the animal was watched if there was noisy air outflow by vibration of the vulvar labiae. Cytological investigations made on discharges collected from the uterus revealed neutrophilic infiltration confirming endometritis. *Per* rectal examination revealed pneumovagina with detection of air in the vagina at the time of palpation and spontaneous air inflow or outflow was also

heard with slightly doughy rumen while *per* rectal examination (Figure 1).



**Fig. 1:** Buffalo with Pneumovagina.

### RESULTS AND DISCUSSION

Buffalo was treated with Ceftriaxone inj (3 g I.M. for 5 days), DNA (500 ml I.V. for 3 days), calcium borogluconate (450 ml I.V. on the first day) and Maxxitol inj (15 ml, I.M. for 3 days). After 20 days of therapy, the buffalo was free from infection but recurrence was noticed after six months of therapy [3].

Air suction into the vagina mostly happen in case of insufficient closure of vulvar lips and hymenal sphincter, when the abdominal muscles of the animal were relaxed or spontaneously during movement of the animal.

Outflow of the air occurred spontaneously in a noisy way depending on the activity of the animal, during straining or if pressure was applied on the air distended vagina from the rectum. Different typical noises could be distinguished depending on air flowing in (fizzle) or out (bubble). The most striking clinical sign in cows with pneumovagina during estrous was a foamy discharge especially in mild and moderate cases. This type of discharge contained different sizes of air bubbles ranging from soap foam-like appearance to little balloons [4].

This might be explained by the increased negative abdominal pressure after parturition which causes a cranial sinking of the anus and subsequently in vagina with increased cranial angulation of the dorsal portion of the vulva in predisposed animals. Air sucking in severely affected animals additionally triggers a reflux of urine from the vestibule to the vagina which results in urine accumulation in the lower part of the vagina.

Perineal atrophy identified in the present case was one of the most characteristic features of pneumovagina and is encountered in individuals with a low body condition score (BCS). Cases with mild or moderate clinical pneumovagina become evident only during estrous. In severe cases, air inflow and outflow can also be determined during other phases of the estrous cycle. According to Goncagul *et al.*, foamy discharge observed in cows with pneumovagina during estrous is a pathognomonic symptom for pneumovagina [5].

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