

# 7<sup>TH</sup> INTERNATIONAL VETERINARY CONGRESS

September 04-05, 2017 | Paris, France

## Possible zoonotic potentiality and epidemiological features of rotavirus infection in calves in Chittagong, Bangladesh

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A cross sectional survey was carried out for the approximation of epidemiological features and zoonotic potentiality of bovine rotavirus A (BRA) infection in neonatal calves in south-eastern part of Bangladesh. Different farm and calf level factors were tested by mixed effect univariable and multivariable logistic regression models to identify significant risk factors for rotavirus infection in calves in the study area. Among the hypothesized risk factors, winter season was found to have higher odds of having the infection in calves compared to summer (OR=6.04; 95% CI, 1.92-18.96; P=0.002). Higher odd ratio of was observed in >3 weeks of age group compared to ≤ 3 weeks (OR=2.87; 95% CI, 1.03-8.01; P=0.04), taking of first colostrums after 30 minutes to 2 hours of birth in contrast to within 30 minutes (OR=13.92; 95% CI, 3.87-50.05; P=<0.001). Zoonotic potentiality of circulating strains was evaluated by sequence analysis. Bovine origin of study isolates clustered with the zoonotic isolates retrieved from NCBI in a same group. Similarity matrices revealed that study isolates has maximum homology of more than 95% at nucleotide level with zoonotic isolates.

### Biography

Shama Ranjan Barua is a field veterinarian; He is working as a veterinary surgeon under the Ministry of livestock and fisheries of Bangladesh. He completed his MS in Microbiology from Bangladesh Agricultural University. Now, he is studying as PhD fellow, Department of pathology and parasitology, Chittagong Veterinary and Animal Sciences University. He is working on rotavirus and other enteropathogens in calf diarrhea in Bangladesh.

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