

Assessment of Brucella melitensis disease burden in lactating goats in Mizque, Bolivia

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Background: Brucellosis is a zoonotic disease that can be transmitted from goats to people by direct contact or through ingestion of unpasteurized dairy products. In Latin America, where goats are a significant part of agriculture, human cases of brucellosis are reported in Mexico, Argentina, and Peru. In Bolivia, human cases of brucellosis have been described, but there is minimal epidemiologic knowledge. The objective of this study was to assess Brucella melitensis disease burden in lactating goats in Mizque, Bolivia.

Methods: Milk and blood samples were collected from 229 lactating goats on 26 farms in Mizque, Bolivia, an agricultural town 100 km from Cochabamba, where human cases of brucellosis have been described. Herds, and goats within herds, were selected via convenience sample. Efforts were made to minimize selection bias. In herds with 16 or fewer lactating goats, all goats were sampled, otherwise, one-third of the lactating goats were sampled. Information from each herd and animal was collected by survey. Milk was analyzed via culture. Serum was analyzed for antibodies using the Rose Bengal plate test and the Lateral Flow Assay.

Results: Median herd size was 33 adult goats (range: 10-150). The average reported age of the animals sampled was 3.4 years (SD: ± 1.5). None of the animals sampled had a reported history of vaccination against Brucella melitensis. 20 (8.7%) goats sampled from 13 (50%) farms had a reported history of abortion. Of the 229 animals sampled, 0 had positive milk culture and serology results (95% CI = 0 – 1.6%).

Conclusion: This region of Bolivia may be free from disease, or may have disease prevalence too low to be detected by the sample size. Given the tendency for disease to cluster within herds, the high disease prevalence in bordering countries, and lack of disease monitoring within Bolivia, the presence of Brucella melitensis in the Bolivian goat population cannot be ruled out. Larger studies conducted in multiple geographic regions of the country are warranted. For example, assuming 100% sensitivity of the tests, a population of 2500 animals, and desiring 95% certainty, the maximum possible prevalence is 1.3% even after finding 0 of 229 positive in this sample.

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Analysis of circulation influenza virus A on the Chany Lake (Novosibirsk region, Russia) in 2008 year

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Background: The natural host species of type A Influenza viruses are wild-waterfowl and shorebirds. The virus easily transfers to the domestic birds, which congestion promotes spread of the infection. Birds migrations assist spread of various variants of virus on the huge territories. Monitoring and studying genetic, antigenic and pathogenic properties reveal to estimate zoonotic danger of such variants. Biological material was collected from captured free-flying birds on the Chany Lake in 2008 year. This is a territory of birds population from Africa, Average and Southern Asia and Europe during nested periods and migration flights.

Methods: Viruses were obtained from cloacal swab material. Avian influenza was isolated by virus isolation methods in embryonating chicken eggs. chorioallantonic fluid from the infected embryos was used as the virus source. RNA was extracted with SV Total RNA Isolation System () in accordance with manufactures instructions and transcribed into cDNA for a subset of samples. In RT-PCR subtype-specific primers were used. Sequence analyses of HA and NA genes were obtained. For each data set, sequence alignments were created using CLUSTAL. Phylogenetic trees were constructed using MEGA 4.1

Results: The virus was detected in 12 probes out of 255. Subtypes of isolates were identified. After making phylogenetic analysis homology of isolates from the Chany Lake with stains circulating in Mongolia, Sweden, Germany and Hokkaido was shown.

Conclusion: Our findings indicate of facility influenza A virus's transmission on the long distance by wild birds of passage. This work was supported by Russian Government and Bio Industry Initiative (BII), USA (ISTC#3436) and was done in collaboration with the Novosibirsk State University.

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34.022**Epidemiological study on infectious bovine rhinotracheitis in cattle**

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Background: The study was conducted on 5 farms belong to the General organisation of Cattle (GOC) in Syria for epidemiological & Sero investigation of infectious bovine rhinotracheitis (IBR).

Methods: Data was collected from individual farm included animal characteristics and farm specifications. Random blood samples were collected from individual ani-