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Seroprevalence of brucellosis in different animal species of Kailali district, Nepal

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Background: Brucellosis is a contagious disease of livestock with significant economic loss. It is also a zoonotic disease, highly infectious causing undulant fever or Malta fever. Transmission occurs between animals mainly through contact with placenta, fetus, fetal fluids and vaginal discharges from an infected animal. Brucellosis has been an occupational risk for farmers, veterinarians and employees in the meatpacking business. In human, brucellosis can cause multisystemic disease with varying spectrum of symptoms. The clinical signs may in human include intermittent or irregular fever, headache, weakness, profuse sweating, chills, weight loss and general aching.

Methods & Materials: This cross-sectional study was conducted in Kailali district of Nepal during a period from September, 2012 to January, 2013. A total of 233 animal blood samples (50 Cattle, 67 Buffalo and 116 Goat) were collected and tested for *Brucella* antibody by plate agglutination test (PAT). Three areas of Kailali district, namely Dhangadhi municipality, Phulbari VDC and Ramshikarjhala VDC were selected for the study considering the time and financial constraint. The serum was separated in Regional Veterinary Laboratory, Dhangadhi and the tests were done at National Zoonoses and Food Hygiene Research Centre's Laboratory in Kathmandu, Nepal. Cold chain was maintained during the transportation of samples. The test was carried out by using agglutination method and the kit developed by Human Gesellschaft fur Biochemica und Diagnostica, Germany. Statistical analysis was done by using MS-Excel 2007 and SPSS version 19.

Blood Collection in Cattle

Results: The seroprevalence of *Brucellosis* was 12% (28/233). Thirty two percentage (16/50) of cattle, 13.4% (9/67) of buffaloes, and 2.6% (3/113) goats were sero positive ($p < 0.05$). Seroprevalence was higher in females (14.6% vs. 10.6%) ($P > 0.05$) and was higher in younger cattles and older buffalo and goats ($p > 0.05$).

Conclusion: This study showed that brucellosis exists as a potential threat in animals of Kailali district of Nepal. This could be a potential source of infection to humans. Considering the high economic losses it can impart on livestock sector and the possible human health abnormalities. So, timely facilitation of awareness generation program and adoption of proper prevention and control strategies are recommended.

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Acute encephalitis syndrome and Japanese Encephalitis, status and trends in Bihar State, India

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Background: Japanese encephalitis (JE), a vector-borne viral disease, caused by a group B arbovirus (Flavivirus) and transmitted by Culicine mosquito. Acute Encephalitis Syndrome (AES) is most widely caused by Japanese Encephalitis (JE) virus. Bihar stands third in the reporting of JE cases in India and still there is a deficiency of the data coming from locales in the state. The current study was carried out to assess the status and trends of AES and JE in Bihar state and to know the status of districts in the disease, so to come up with the recommendations for its prevention and control.

Methods & Materials: Epidemiological data on the monthly basis for AES and JE in over the past 6 years (2009-2014) was collected as reported by State Health Authorities with prior necessary permission.

Results: The total numbers of 4400 cases (733 cases/year) with an average Case Fatality Rate (CFR) of 30% in aggregate of AES for the entire study period. A total 396 JE cases reported approximately 14% CFR. The peaks are shown in start and end of the