HUMAN BRUCELLOSIS IN TEHSIL SHARQPUR, PUNJAB, PAKISTAN

WARDA RIAZ,1 IAHTASHAM KHAN,1 HEINRICH NEUBAUER,2 FALK MELZER,2 RIZWANA KAUSAR,1 HIRA HASSAN,1 TAYYABA KHAN,1 FAISAL ABBAS1 AND SHAHZAD ALI1

1University of Veterinary and Animal Sciences, Lahore, Pakistan
2Institute of Bacterial Infection and Zoonoses, Friedrich-Loeffler-Institute, Jena, Germany
Corresponding Authors Email: fajarsaeed57@gmail.com

The present study was conducted to find out the seroprevalence, risk factor and clinical picture associated with human brucellosis in tehsil Sharqpur, Punjab, Pakistan. A total of 200 serum samples were obtained from persons of different occupational groups [Farmer, Housewife, Govt. job, Businessman and others (Students and Labors)]. Data related to gender, age, occupation, locality, urbanicity, socioeconomic status, contact with animal, type of animal, contact with aborted, consumption of raw milk and brucellosis related symptoms (fever, sweating, fatigue, chill, loss of appetite, arthralgia, headache, anorexia, stiff of neck, back/abdominal/muscle pain, nausea, body weakness and weight loss) was obtained on blood sampling date. The Rose Bengal plate test (RBPT) was performed to find out the seroprevalence of brucellosis. The overall seroprevalence was 8%. The individuals living in rural areas and having poor socioeconomic status had higher likelihood of brucellosis seropositivity. This is the first report of human brucellosis from tehsil Sharqpur by the use of serological method.

BRUCELLA ABORTUS IDENTIFIED AS THE CAUSATIVE AGENT OF BRUCELLOSIS IN SMALL RUMINANTS IN PAKISTAN

SHAHZAD ALI,1 HEINRICH NEUBAUER,2 FALK MELZER,2 IAHTASHAM KHAN,2 WASEEM AND AHMAD KHAN1

1University of Veterinary and Animal Sciences, Lahore, Pakistan
2Institute of Bacterial Infection and Zoonoses, Friedrich-Loeffler-Institute, Jena, Germany
Corresponding Authors Email: shahzad.ali@uvas.edu.pk

The present study was designed to estimate the seroprevalence and identify the causative agent of brucellosis in sheep and goats in Potohar region of Pakistan. Serum samples (n=278) were collected from sheep and goats that had close contact with seropositive cattle and buffaloes herds. Data related to age, sex, location, and breed were collected on the sampling day. Serums were initially screened for presence of Brucella antibodies by Rose Bengal plate test (RBPT) antigens. Seropositive samples were subjected quantitative real-time polymerase chain reaction (PCR) analysis using Brucella genus-specific (bcep31) and Brucella species-specific (IS711 for Brucella abortus and Brucella melitensis) quantitative real-time polymerase chain reactions (qRT-PCR). Twenty-four (8.6%) serum samples were positive by RBPT. Of the 24 seropositive serum samples, 18 (75%) were positive in the Brucella genus-specific (bcep31) and Brucella abortus-specific (IS711) qRT-PCR, respectively. Brucella abortus was identified as the causative agent of small ruminant brucellosis in Pakistan. Results of this study can be used for the development of an effective control and eradication strategy for brucellosis in livestock, especially small ruminants.