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SERO-EPIDEMIOLOGICAL AND HAEMATOLOGICAL STUDIES ON TOXOPLASMOSIS IN CATS, DOGS AND THEIR OWNERS IN LAHORE-PAKISTAN

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Toxoplasmosis is a parasitic zoonosis with worldwide distribution, caused by *Toxoplasma gondii* and is very common in cats, dogs and human. Keeping in view the zoonotic importance of the disease, the current study was conducted to find out the epidemiological status of toxoplasmosis in cat, dog and human population in Lahore city of Pakistan and to determine the possibility of transmission of toxoplasmosis from cats and dogs to their owners. For this purpose sera samples from 50 cats (n=25 domestic, n=25 stray) 100 dogs (n=50 domestic, n=50 stray) and 150 human (n=25 cat owners, n=50 dog owners, n=25 people having no contacts either with cats or dogs, n=50 employees of the University of Veterinary and Animal Sciences (UVAS), Lahore working at various outdoor clinics) were analyzed by using Latex Agglutination Test (LAT) to determine the anti-toxoplasma antibodies at serum dilutions of 1:16, 1:64, 1:128 and 1:256. Overall 56% cats were sero-positive for anti-toxoplasma antibodies. Stray cats had the high prevalence (64%) followed by domestic cats (48%). The highest prevalence (71%) was detected in cat in the 7 year or above age group. The sero-positivity percentage of toxoplasmosis was highest in local breeds of the cats (64%). Furthermore the domestic cats, which had wandering habits, had higher seropositivity (62%) than the cats, which had not these habits (41%). Overall 39% dogs were sero-positive for anti-toxoplasma antibodies. Stray dogs had the high prevalence (50%) than the domestic dogs (28%). The highest prevalence of toxoplasmosis (45.9%) was recorded in dogs of age group of >1-3 years. Dogs having access to house as well as yard has the highest prevalence (40%) following the dogs having access only to yard (25%) and the dogs kept strictly at homes had the lowest prevalence (16%). Overall 22% human were sero-positive for anti-toxoplasma antibodies. The highest seropositivity was observed in cat owners (32%) followed by dog owners (26%), UVAS, employees (20%) and the lowest sero-positivity (14%) was observed in people having no contact with dogs and cats. There was decrease in haemoglobin level of cats, dogs and human positive for anti-toxoplasma antibodies.