

Prevalence of Camels Toxoplasmosis in Gedarif State Eastern Sudan

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ABSTRACT

The objectives were to estimate the seroprevalence of *T. gondii* infection and to assess risk factors from camels in the Gedarif State, Eastern Sudan. Also to compare the efficiency of latex agglutination test (LAT) and indirect enzyme linked immunosorbent assay (iELISA) in determination of *Toxoplasma gondii* seroprevalence, during the period from 2015-2016. This study was conducted to camel toxoplasmosis in four localities in Gedarif state during the period from 2015-2016. Serum samples were collected from 300 camels; 161(53.7%) of samples represents males and 139(46.3%) were collected from females. Latex Agglutination Test (LAT) was applied to screen all serum samples for Toxoplasmosis while ELISA was also used to confirm the positive result obtained by LAT. Using LAT; out of 300 serum samples 149 (49.7%) were positive to *Toxoplasma gondii*. Percentage of positive cases was more in females (52.3%) than in males (47.7%). The result of LAT test in camels showed a sero-reactivity correlated with significance between the surveyed locations ($P < 0.05$). 149 samples were positive to toxoplasma gondii tested from different localities in Gedarif state was (AL-Shwak 25 (16.77%), AL-Butana 48 (32.21%), Wasat AL-Gedarif, 10 (6.71%) and AL-Rahad, 66 (44.29%) with LAT test. The ELISA test showed that 44 (29.9%) samples were positive for toxoplasmosis, the males were 21 samples (47.7%) which was lower than the percentage in females 23 samples (52.3%).

Keywords: camels, toxoplasmosis, Gedarif State, Sudan