Epidemiology of Toxoplasmosis in Small Ruminants

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Toxoplasmosis is a major cause of infectious abortion and perinatal mortality, which results in heavy economic losses to sheep and goat industry. The study was conducted in sheep and goats which were brought to Corporation Slaughter House, Perambur, Chennai using indirect ELISA. The seroprevalence of toxoplasmosis was 4.34% and 6.52% in sheep and goats, respectively with overall seroprevalence rate of 5.43%. Higher seroprevalence observed in male sheep and female goats. It is also observed in different native breeds of sheep (Keezhakaridal and Trichy black) and goats (Jamunapari and Tellicherry). Higher prevalence of toxoplasmosis in older animals with slight difference in seroprevalence rate between different age groups was noticed. Seroprevalence under semi-intensive management system was 8.69%; however no seroprevalence was recorded under extensive management practices in this study. The presence of seroprevalence in sheep and goats indicates the persistence of infection with Toxoplasma gondii. The severity of infection is associated with the stage of pregnancy at which the animals become infected. Hence, it necessitates the routine serosurveillance and monitoring to implement prevention strategies to reduce the economic losses due to abortions by T. gondii and augment reproduction performance.

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