Comparison of serological and molecular tests for detection of Trypanosoma evansi in domestic animals from Ghardaïa district, South Algeria

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Description:

Trypanosoma evansi (T. evansi) is a hemoflagellate parasite that affects a broad range of mammalian hosts and that causes a disease called surra. Diagnosis of surra based on clinical symptoms alone is inaccurate. Therefore, a variety of serological and molecular diagnostic tests are used to assist in the detection of T. evansi infections.

The aim of this study was to compare the diagnostic performance of four serological tests (CATT/T.evansi, immune trypanolysis, ELISA with purified variant surface glycoprotein RoTat 1.2 and with whole cell lysate) and two molecular PCR tests targeting sequences within the ribosomal genes locus (ITS1 TD PCR and 18S qPCR). Tests were carried out on blood samples from 161 dromedary camels, 93 horses, 129 goats, 168 sheep, 127 bovines and 76 dogs. Latent class analysis was carried out to calculate the sensitivity and specificity of each diagnostic test. Cohen's Kappa test ...

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