The effect of Trypanosoma vivax infection on late pregnancy and postpartum return to cyclicity in Boran cattle.

Okech, G; Watson, ED; Luckins, AG; Makawiti, DW.

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Abstract:

A study was designed to examine the effect of infection with Trypanosoma vivax KETRI 2501 on the maintenance of pregnancy and postpartum return to reproductive function in susceptible Galana (n = 6) and trypano-tolerant Orma Boran (n = 6) heifers during the third trimester of pregnancy. Of the 12 study animals, 3 Galana and 3 Orma Boran heifers served as controls. One of 3 Galana heifers calved prematurely with subsequent perinatal loss. Of the 2 heifers that produced live calves, 1 calf died shortly after birth, while the other survived. Two of 3 Orma heifers calved prematurely and all 3 calves died shortly after birth. The 6 control heifers produced live calves at term, all of which survived. Infection with T. vivax during the third trimester of pregnancy delayed the resumption of ovarian activity after calving, with the Ormas taking a significantly (P < 0.05) shorter time from calving to ovulation. There was no clear evidence that premature birth was associated with pathological changes in reproductive organs. Results from this study demonstrated that infection with pathogenic T. vivax during late pregnancy influenced the outcome of pregnancy in both susceptible Galana and trypanotolerant Orma Boran heifers, resulting in premature births, perinatal loss, retained placentae, low birth weights and a prolonged period to the onset of postpartum ovarian activity.