Correlation of *Theileria annulata* infection in experimental calves with ELISA (antibody titre) and blood smear examination (percentage of parasitaemia)

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Experimental infection of *Theileria annulata* in calves was set up to induce *T. annulata* parasitaemia through blood/tick. A total of 63 sera samples from five calves were collected prior to infection and at periodical weekly intervals after infection and sera titres were assessed by ELISA and correlated with parasitaemia. Blood smear examination in four experimental calves indicated nil parasitaemia on the day of splenectomy and 7th day after splenectomy, when the antibody titre ranged from 1:100 to 1:200, increase in parasitaemia from 15-30 per cent on 14th day when the antibody titre ranged from 1:400 to 1:1600; maximum parasitaemia of 40 to 50 per cent on 21st day and the highest titre of 1:1600 to 1:3200 on that day; and consequent gradual reduction of antibody titres from 35th day. Calf infected with *T. annulata* infected *Hyalomma marginatum isaaci* ticks showed antibody titre from 21st day onwards and the titre was found to increase gradually. Correlation of results of blood smear examination and ELISA indicated, that increased antibody titre and the subsequent decrease is directly proportional to the increase and decrease in parasitaemia.