A study was made of the effects of serum and gamma-globulins from vaccinated cattle (donor cattle) given to cattle exposed to Theileria parva infection. The latter were treated with normal serum, with serum containing high antibody titre against T. parva (as evaluated by the indirect fluorescent antibody technique), or with globulins prepared from normal and from immune serum. They were infected by inoculation of standardized suspension of Rhipicephalus appendiculatus containing T. parva infective particles. Neither the establishment of infection nor the clinical and haematological changes in the principals were influenced by treatment with immune serum or concentrated globulins; all died of East Coast fever. Humoral antibodies did not protect cattle against fatal ECF, neither did they enhance the infection.