Trends in the control of theileriosis in sub-Saharan Africa

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ABSTRACT


The declining efficacy of acaricide treatment as a means of reducing the prevalence of *Theileria parva* infections in sub-Saharan Africa has intensified efforts to achieve control through immunization of susceptible cattle. The infection and treatment method of immunization has enjoyed a resurgence with the availability of more effective cold chain facilities, although concerns remain regarding the possibility of vaccine strains spreading in local tick populations. In addition, an in-depth understanding of protective mechanisms deployed by immune cattle and the antigens targeted by them has led to substantial progress in the development of candidate subunit vaccines against both sporozoite and schizont stages of the parasite. The likely success of these vaccines, as well as infection and treatment immunization, will ultimately depend on the extent to which they disturb the endemic status of the parasite. These issues are discussed in the light of recent information on the genotypic diversity of *T. parva* in the field and the extent to which this is compromised by the immune response.