Idiopathic dilated cardiomyopathy (IDC) is a common clinical problem in Africa. To determine if there is a defect of immune regulation in patients with IDC, the percentage of total T-cells (OKT3 positive), helper/inducer cells (OKT4 positive) and suppressor/cytotoxic cells (OKT8 positive) were measured using monoclonal antibodies in 20 patients with IDC and in 20 age-matched normal control subjects. The percentage of helper/inducer cells was significantly higher in the IDC patients (45 +/- 2% mean +/- standard error) than in the normal subjects (33 +/- 2%) and 8 of the 20 IDC patients had a helper-suppressor cell ratio (OKT4/OKT8) higher than the normal range. Of the 8 patients with this abnormality, 7 were studied within 3 months of the onset of their illness. Results suggest that an excessive immune reaction is part of the pathogenesis of IDC in Africans.