

Beta-adrenergic receptor blockers as part of management of heart failure therapy in Africa – very little evidence

ABSTRACT

Background- Beta-adrenergic receptor blockers have been shown to reduce morbidity and mortality in Caucasians with chronic heart failure (CHF) but there is little evidence of their efficacy in the African population where CHF is common but more often due to hypertension than ischemic coronary disease. In hypertension there is evidence suggesting that beta-adrenergic receptor blockers may be less effective in Africans for reducing blood pressure.

Aim-To explore the evidence for using beta-adrenergic receptor blockers as part of management of African patients presenting with CHF.

Methods-We searched MEDLINE (January 1966 through December 2005) and reference lists of articles for relevant references.

Results-Seventy two articles were identified investigating the role of beta-blockers in cardiovascular disease in the African continent. Of these only two articles investigated the role of beta-adrenergic receptor blockers in heart failure specifically. Those studies from South Africa and Nigeria enrolled 106 patients and demonstrated that black Africans seem to do equally well using carvedilol and atenolol respectively, mainly in terms of improvement in exercise tolerability, New York Heart Association functional class and left ventricular systolic function. However, a subgroup analysis of black patients in COPERNICUS - Carvedilol Prospective Randomized Cumulative Survival, MERIT-HF – Metoprolol Controlled-Release Randomised Intervention Trial in Heart Failure and U. S. Carvedilol Heart Failure Study Group (predominantly US and European Africans) showed similar mortality benefit to white patients.

Conclusions-There is a paucity of data using beta-adrenergic receptor blockers in African patients with CHF living in Africa. We identified a need for urgent research in this area.