Antifungal susceptibilities of Cryptococcus neoformans cerebrospinal fluid isolates from AIDS patients in Kenya.

Abstract

Poor susceptibility of Cryptococcus neoformans to fluconazole (FLC) is a matter of concern among clinicians in Africa. The emergence of resistance to FLC was recently reported in Kenya, but it is not known whether it is widespread. Thus, there is need for more antifungal drug susceptibility studies in Kenya. The aim of this study was to measure the in vitro antifungal drug susceptibilities of incident C. neoformans isolates from acquired immunodeficiency syndrome patients in Kenya. Antifungal susceptibility testing was performed in 67 C. neoformans isolates by broth microdilution method as outlined in the Clinical and Laboratory Standards Institute document M27-A3 using FLC, amphotericin B (AMB), voriconazole (VOR), ravuconazole (RAV) and fluycytosine (5-FC). Isolates were grown on l-canavanine glycine bromothymol blue medium for serotype identification. Six per cent of the isolates were identified as C. neoformans var. gattii serotype B or C and 94% as C. neoformans var. neoformans. All isolates tested were susceptible to AMB, VOR and RAV (100%), and high susceptibilities were seen to FLC (97%), and 5-FC (90%). Only 3% and 10% of the isolates' susceptibility to FLC and 5-FC, respectively, was dose-dependent or intermediate. These results demonstrate high susceptibilities of incident C. neoformans isolates to FLC and AMB, antifungals used for treatment of cryptococcal meningitis in Kenya.