Assessment of a pilot antiretroviral drug therapy programme in Uganda: patients' response, survival, and drug resistance

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Summary

Background

Little is known about how to implement antiretroviral treatment programmes in resource-limited countries. We assessed the UNAIDS/Uganda Ministry of Health HIV Drug Access Initiative—one of the first pilot antiretroviral programmes in Africa—in which patients paid for their medications at negotiated reduced prices.

Methods

We assessed patients' clinical and laboratory information from August, 1998, to July, 2000, from three of the five accredited treatment centres in Uganda, and tested a subset of specimens for phenotypic drug resistance.

Findings

912 patients presented for care at five treatment centres. We assessed the care of 476 patients at three centres, of whom 399 started antiretroviral therapy. 204 (51%) received highly active antiretroviral therapy (HAART), 189 (47%) dual nucleoside reverse transcriptase inhibitors (2NRTI), and six (2%) NRTI monotherapy. Median baseline CD4 cell counts were 73 cells/μL (IQR 15–187); viral load was 193 817 copies/mL (37 013–651 716). The probability of remaining alive and in care was 0·63 (95% CI 0·58–0·67) at 6 months and 0·49 (0·43–0·55) at 1 year. Patients receiving HAART had greater virological responses than those receiving 2NRTI. Cox's proportional hazards models adjusted for viral load and regimen showed that a CD4 cell count of less than 50 cells/μL (*vs* 50 cells/μL or more) was strongly associated with death (hazard ratio 2·93 [1·51–5·68], p=0·001). Among 82 patients with a viral load of more than 1000 copies/mL more than 90 days into therapy, phenotypic resistance to NRTIs was found for 47 (57%): 29 of 37 (78%) who never received HAART versus 18 of 45 (40%) who received HAART (p=0·0005).

Interpretation

This pilot programme successfully expanded access to antiretroviral drugs in Uganda. Identification and treatment of patients earlier in the course of their illness and increased use of HAART could improve probability of survival and decrease drug resistance.

Weidle, P.J., Malamba, S., Mwebaze, R., Sozi, C., Rukundo, G., Downing, R., Hanson, D., Ochola, D., Mugyenyi, P., Mermin, J. and Samb, B., 2002. Assessment of a pilot antiretroviral drug therapy programme in Uganda: patients' response, survival, and drug resistance. *The Lancet*, *360*(9326), pp.34-40.