Brief Communication

Low Prevalence of HIV in the 'window of hope' age group in Northwest Ethiopia

Getahun Mengistu[1], Janet Jones[2]

Abstract

HIV prevalence has been surveyed in a sample of young people from a rural small town, representing a group in which little surveillance has been undertaken. Only two of the 141 were found to test positive using the rapid HIV test. This age group represents a part of the population in which suitable education and motivation could slow the progression of the spread of HIV/AIDS. [*Ethiop.J.Healh Dev.* 2003;17(1):85-87]

Introduction

The HIV/AIDS epidemic in Africa is having a major impact in many countries on life expectancy, public health provision, and economic development. It is therefore, of great importance to know the progress of the HIV/ AIDS epidemic in Ethiopia.

Young people are the group in which incidence of HIV/AIDS is lowest (1) and are the target for education. Most surveillance work has been done in urban areas, and in higher risk groups (2). There is a need to know prevalence in different areas of the country and in different groups, including rural areas and low risk groups.

The objective of the study was to assess the prevalence of HIV in a low risk group.

Methods

Informed consent for HIV testing was obtained from school authorities, after consultations with parents and teachers, and assurances of anonymity had been given. Ethical clearance for the study was obtained from the Research and Publications Committee of the Gondar College of Medical Sciences.

The study was an anonymous, unlinked screening of students at a primary school in a town with a population of 3800 in the Amhara region. There were 325 students aged 10 – 14 years old at the school. Blood samples were taken from 141 of those. The sera were taken in February 2000, from students positive for an unrelated disease (schistosomiasis mansoni). The sera were stored at –20^{o}C. until they were tested using the rapid HIV test, Determine (Abbott). The sensitivity of this test is 100%, and the specificity is 99.75% (manufacturer's data).

Results

There were 325 students in the target age group in the school. Blood samples were taken from 141of those. The age structure of the population surveyed is shown in the Table. The predominant religion was Orthodox Christianity. Most (91%) of the students lived in the small town, with a few (9%) being from nearby villages. Sixty-two (44%) were males and 79 (56%) were females. Only two of the 141 (1.4%) sera showed a positive result, one being from a 10-year-old male, and the other from a 12-year-old female. Both of these individuals were residents in the town.

[1]Department of Internal Medicine; [2]Department of Biochemistry, Gondar College of Medical Sciences, PO Box 196, Gondar, Ethiopia

Table 1: **Age structure of the population surveyed, February 2000.**

AGE	MALES		FEMALES		TOTAL	
	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT
10	17	27	28	35	45	32
11	14	23	10	13	24	17
12	10	16	19	24	29	21
13	13	21	14	18	27	19
14	8	13	8	10	16	11
total	62		79		141	
percent	44		56			

Discussion

Surveillance of sero-prevalence of HIV is a priority in the Strategic Framework for the National Response to HIV/AIDS in Ethiopia for 2000-2004 (3). Much of the previous surveillance in the country has been undertaken in antenatal clinics, in urban areas, or in particular high-risk groups (2, 4). Data from Ethiopia (1) suggests that the numbers of reported AIDS cases is lower in the 10-14 year age group compared any other age group. Since, little surveillance has been done in smaller towns and rural areas, the extent of the epidemic among lower risk groups appear to be unknown (2). It is essential that the incidence of infection be followed, to allow targeting of educational measures, and to assess the impact of interventions considered to slow the progress of the epidemic (5). The data presented here supports the idea that young people represent a "window of hope" for slowing the progression of the epidemic

We recommend that further surveillance be undertaken in rural areas and in low risk groups to monitor the progress of the epidemic. There are major ethical and practical barriers to such surveillance. These barriers can and should be overcome by guarantees of anonymity and by convincing people of the benefit of undertaking such surveys.

We conclude that comprehensive intervention programmes should target this age group of the lowest prevalence. Education programmes should include not only information about sexual transmission, but also about other routes of infection such as tattooing, genital mutilation and local injection practices.

Acknowledgements

We thank Ato Kassie Molla for expert technical assistance, and Dr. Sirak Hailu for critical reading of the manuscript. We are grateful to Dr. Yigeremu Abebe, Head of the Medical Department of the Ministry of Defense for the donation of kits for testing sera, and to Dr. E. Sanders, Ethio-Netherlands AIDS Research project, for valuable advice and help.

References

1. Aids in Ethiopia (Background, projections, impact, interventions), Ministry of Health, Epidemiology and AIDS Department, 2nd ed. 1998.
2. Kebede, D., Aklilu, M., & Sanders, E. The HIV Epidemic and the state of its surveillance in Ethiopia. Ethiopian Medical Journal 2000;38:283-302.
3. MOH Strategic Framework for the National Response to HIV/AIDS in Ethiopia for 2000-2004 Ministry of Health, Addis Ababa, Sept 1999.

4. Assefa A, Rahlenbeck S, Molla K, Alemu S. Seroprevalence of HIV-1 and Syphilis Antibodies in Blood Donors in Gondar, Ethiopia, 1989-1993 Journal of Acquired Immune Deficiency Syndromes 1994;7:1282-1285.

5. MOH Summary. Regional Multisectorial HIV/AIDS Strategic Plan 2000-2004 Ministry of Health, Addis Ababa. Sept 1999.