

# Presentation of AIDS in Nepal

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## Abstract

This article presents symptomatic HIV infection/AIDS and mortality due to AIDS in Nepal. The frequently affected age group is 20-29 years and the number of males predominates over females. The pattern of presentation of AIDS in the Nepali context is also discussed. Tuberculosis of lungs is the important opportunistic infection in HIV positive persons, contributing to 67.8% of the total AIDS cases. Non-specific symptoms like weight loss (98.4%), fever (95.4%) and diarrhoea (78.7%) contribute to majority of the presentations. Symptoms like vaginal discharge in women (52.2%), persistent lymphadenopathy (24.6%) and oral thrush (28.4%) are also important contributors. The mean age at death is 28.8 years.

*Keywords: AIDS; Nepal; Tuberculosis; Lymphadenopathy; Oral thrush.*

## Introduction

Acquired immune deficiency syndrome (AIDS) is posing a great threat to the development of many countries and Nepal is no exception. Nepal reported its first patient with AIDS in July 1988. Following this, the number of persons with AIDS is growing gradually over the years. With the increasing number of HIV infection and probably increasing awareness and increasing availability of diagnostic facilities, more and more persons are detected with human immuno-deficiency virus (HIV) in the country. However, the reporting of AIDS has been very low though there is a tremendous potential for rapid and explosive spread of

HIV infection in the country. As a slow progressing infection, the detection of AIDS might be delayed for a few more years for the health workers might not be very confident to diagnose it without laboratory investigations.

## Objectives of the study

- To examine the presentation pattern of symptomatic HIV/AIDS cases in Nepal.
- To find out the major opportunistic infections in HIV positive people.
- To inform health workers about the important signs of AIDS in the Nepalese context.

## Methods and Materials

This study examines the available reports/records on HIV/AIDS submitted by various organizations to the National Centre for AIDS and STD Control for the last ten years, from 1988 to 1997. The reports from various organizations and institutions make the basis of this study.

## Findings

The available records show that 58 out of 75 districts in Nepal have reported HIV/AIDS.<sup>1,3</sup> However, only 42 districts of Nepal have reported AIDS cases so far. Major health institutions of the country who reported persons with AIDS, are included in this study. Table I shows the number of HIV infection and AIDS by year and sex.

**Table I: Reported HIV/AIDS Cases by Year**

Year	# HIV	AIDS cases		Total
	positives	Male	Female	

1988	4	1	1	2
1989	2	-	-	-
1990	5	1	1	2
1991	26	0	5	5
1992	77	1	4	5
1993	81	4	6	10
1994	40	2	9	11
1995	110	10	5	15
1996	135	18	19	37
1997	489	80	16	96
Total	969	117	66	183
%		64.0%	36%	100%

Table I shows that the number of reported AIDS cases is increasing gradually over the years. However, in male the trend seems to be more rapid in the past two years compared to slow increase in female.

**Table II: AIDS Morbidity by Age group**

<i>Age group</i>	<i>Male</i>	<i>Female</i>	<i>Total</i>	<i>%</i>
0-4 years	-	-	-	-
5-13 years	-	-	-	-
14-19 years	2	7	9	4.9
20-29 years	62	42	104	56.8
30-39 years	41	17	58	31.7
40-49 years	9	-	9	4.9
50 + years	3	-	3	1.6
Total	117	66	183	100%

Table II shows that the majority of the AIDs cases fall on the 20-29 years age group which is in line with a high frequency of HIV infection in the same age group. Both male and female show the same pattern. However, only females over 40 years are not reported to have AIDS. The mean age of presentation of AIDS is found to be 28.8 years.

The following table shows the clinical presentation of AIDS cases.

**Table III: Clinical Presentation of AIDS cases**

<i>S.No.</i>	<i>Clinical Presentation/ Diagnosis</i>	<i>Frequency</i>	<i>%</i>
1.	Weight loss	180/183	98.4
2.	Diarrhoea	144/183	78.7
3.	Fever	175/183	95.6
4.	Pulmonary Tuberculosis	124/183	67.8
5.	Persistent Lymphadenopathy	45/183	24.6
6.	Pneumonia	13/183	7.1
7.	Skin Manifestation (Herpes, multiple abscess, Pyoderma)	40/183	21.9

8.	Vaginal Discharge	36/69	52.2
9.	Oral Thrush	52/183	28.4
10.	Chronic Cough	154/183	84.1
11.	Emaciation/Low G.C.	39/183	21.3
12.	Hepatosplenomegaly	8/183	4.4
13.	Neurological Manifestation	8/183	4.4
14.	STD	26/183	14.2

The frequent presentations of AIDS is reported to be weight loss (98.4%), fever (95.6%) and diarrhoea (78.7%). Pulmonary tuberculosis was diagnosed in more than two thirds (67.8%) of AIDS patients. Vaginal discharge in women is another major findings (52.2%) presented in more than half of the women with AIDS.

**Table IV: Mortality due to AIDS by age group and sex.**

Age group	Mortality		Total	%
	Male	Female		
0-4 years	-	-	-	-
5-13 years	-	-	-	-
14-19 years	-	3	3	3.2
20-29 years	31	27	58	62.4
30-39 years	23	6	29	31.2
40-49 years	2	-	2	2.2
50 + years	1	-	1	1.0
Total	57	36	93	100
%	61.3	38.7	100	

Table IV shows that the majority of the mortality (more than three fifths) occurred in the age group of 20-29 years, followed by 30-39 years (with one third of the total mortality). The mean age of death was found to be 28.8 years for both sexes (For male it was higher with 30.1 years and for female 27.2 years).

## Discussion

The National AIDS Policy requires that all HIV/AIDS cases be reported giving due respect to confidentiality. Reported official cumulative figures for HIV in Nepal as of 31 December 1997 stands at 969 out of a total of 170,375 tests carried out so far.<sup>1</sup> However, the estimation of HIV positive persons in the country stands at about 25,000 for 1997. It is projected that by the year 2000, the number of HIV positive persons might reach 50,000-100,000. The majority of reported HIV infection is transmitted through heterosexual route.

The trend of HIV infection reported clearly shows that the AIDS cases are more concentrated in the central and eastern regions of Nepal compared to mid and far western Nepal. It was noticed that the epicenter of HIV infection was initially concentrated in the central region of Nepal, which first spread to eastern part of Nepal and then to Western part of Nepal. The current data from sentinel surveillance in the far and mid-western region of Nepal show this trend clearly. The higher number of AIDS cases will be reported from these areas after a few years as the HIV reported cases are gradually increasing in these regions.

We had reported the profile of AIDS cases in Nepal in 1993.<sup>2</sup> The number of reported AIDS cases at that time was very small - just 20 cases. This study examines the profile of AIDS cases, extended for a period

of 10 years (1988-1997) with a cumulative total of 183 cases of AIDS reported to the National Centre for AIDS and STD Control of Nepal. Analysis of the available reports are done here to see the presenting pattern of AIDS cases in the Nepalese context.

Many countries have reported similar or different trend of manifestation of AIDS cases. It is accepted that manifestation of "AIDS is very often related with symptoms of secondary or "opportunistic" infections in a HIV positive person. So, incidence/ prevalence of the secondary infections in the community might play a vital role in causing symptoms in HIV infected persons. The health workers should not forget that opportunistic infections might also cause the symptoms in an HIV positive person due to already existing immune deficiency.

In our context, tuberculosis is found to be a major opportunistic infection in HIV positive persons (67.8%). In the previous study, it was 70% of the total reported cases.<sup>2</sup> The annual incidence rate of tuberculosis in Nepal is reported to be more than 1% and an estimated 2% of the total population is having active tuberculosis.<sup>6</sup> In this context, it is but natural that tuberculosis would be the main "opportunistic" infection in the HIV positive persons in Nepal. In HIV positive persons, pulmonary tuberculosis might have dramatic and rapid onset<sup>4</sup> and so, due consideration should be given for early diagnosis and initiation of more aggressive treatment.

The non-specific symptoms like diarrhoea contribute for 78.7% of cases compared to 80% reported previously. Fever was presented in a overwhelming of cases, 95.6% of cases compared to only 80% in the previous study. In other countries, diarrhoea is reported to contribute for about 40% in AIDS patient.<sup>4</sup> Though diarrhoea might indicate other infections given the hygienic condition and/or worm infestation of Nepalese, it might be reflection of HIV infection itself. Weight loss was reported by 98.4% of persons with AIDS in Nepal which can be explained by HIV infection itself, poor nutritional status and parasites along with diarrhoea.

Two findings are important for health workers where appropriate laboratory facilities are not available. *Oral thrush* and *persistent lymphadenopathy*. We have reported 80% cases of oral thrush in persons with AIDS previously; however, at present, it contributed only for about one quarter of the total cases. Literature shows that oral thrush contributes for about one fifth of the HIV related oral disease<sup>5</sup> in otherwise healthy HIV-positive individuals and oral candidiasis might be the first clinical sign of HIV infection.<sup>4</sup> Detection of candidiasis can be predictive of HIV infection as it is supposed to be a rare condition in a young healthy person.<sup>4</sup> Similarly, it is important to ask the HIV positive person about difficulty in swallowing and examining the oral cavity for thrush as it can be managed relatively well.

Lymph node enlargement is another frequently presented symptoms in our context; about a quarter presented with this complaint associated with other symptoms. Some of the persons, who had tuberculosis of the lungs, were reported to be treated with antitubercular drugs with good response to the treatment, but others did not.

Long standing cough also presented in a majority (84.1%) of cases. This was related either with tuberculosis or probably primarily associated with HIV, which was difficult to differentiate in our context with the secondary reports.

The mortality rate was highest in the age group 20-29 years as in other parts of the world. The mean age at death was found to be 28.8 years, being higher in male (30.1 year) than in female (27.2 years). It follows that the average life span (after appearance of symptoms of AIDS) is about one year in the Nepalese context.

## Acknowledgements

I wish to thank all my colleagues at various institutions, who sent the HIV/AIDS reports.

I would like to thank Director of NCASC for giving me permission to publish the findings. Thanks also goes to my colleagues at the NCASC, especially Mr. Khagendra Bhandari and Ms. Usha Bhatta for their help.

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