

Scenario of HIV/AIDS Patients in a Government Hospital of Nepal

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ABSTRACT

Background: With the increase in the severity of immunosuppression, due to HIV infection, there is increase in the flow of patients seeking care and support services. Antiretroviral drugs minimize chance of developing AIDS related opportunistic infection and therefore there would be the prolongation of life of the patients. The objectives of this study are to assess the chief complaints, major opportunistic infections, complications of ART and treatment outcome of hospital admitted HIV patients.

Methods: A cross sectional study was carried out between December 2008 to May 2009 among 66 HIV patients undergoing indoor treatment in Seti Zonal Hospital, Dhangadhi.

Results: Of the total cases, 36 (54.5%) were male and 30 (45.5%) were females with predominant age group of 31-40 years (47%). About 24% of admitted patients had CD4 count less than 50/cu mm blood. Thirty five (53%) cases presented fever as the major clinical presentation of HIV/AIDS due to different opportunistic infections followed by cough (28.8%), loss of appetite (28.8%), weight loss (27.3%), and diarrhea (24.2%). Tuberculosis was found to be the major opportunistic infection accounting 27.3% followed by gastroenteritis (21.2%) and oral candidiasis (15.5%). Treatment outcome of hospital admitted patients showed the 83.3% recovery rate and 4.3% death rate.

Conclusions: Hospital admission was found to be efficient to treat the major opportunistic infections and management of ART hypersensitivity reactions. While tuberculosis was the leading opportunistic infection, the most common clinical manifestation was found to be fever among the admitted HIV/AIDS patients.

Key words: clinical features, candidiasis, Dhangadi, HIV/AIDS, Tuberculosis.

INTRODUCTION

As the HIV infection directly deteriorate the body's immune system, the infected person develop several HIV related clinical features and opportunistic infections.¹ Being the most backward region, the far western development region has high illiteracy rate, low socio-economic status and high migration rate causing the progression of epidemiological status of HIV towards generalized form.²

The estimated number of People living with HIV/AIDS (PLWHA) in Nepal is over 75,000 while National Centre for AIDS and STD Control (NCASC) has recorded 16262 HIV cases (as of 16th August 2010).³ Regular investigation of the admitted patients regarding their clinical features, ART status and laboratory investigation of Opportunistic infections (OIs) are essential component of HIV care and treatment services.⁴ So this study is conducted to

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document the clinical and microbiological profile, chief complaints, complication of ART and treatment outcome of admitted HIV/AIDS patients at Seti Zonal Hospital, Dhangadi.

METHODS

A prospective cross sectional study that was conducted in the department of internal medicine of Seti Zonal Hospital, Dhangadi, Kailali, Far Western Region, Nepal from December 15, 2008 to May 23, 2009. Patients severely ill with HIV positive who were admitted in the hospital were enrolled in the study. Most of the patients were on ART and few of them were newly diagnosed HIV positive in hospital period and awaiting the ART treatment.

Informed consent was obtained from the subjects and the hospital ethical board committee approved the study. All subjects had their CBC (Complete Blood Count), fasting blood sugar, liver function test, Renal function test, CD4 count, Chest X-ray, sputum examination for Acid fast bacilli (AFB) and routine examination of urine and stool.⁵

Special register has been mentioned with different columns for each patient with description of name, age/sex, address, chief complaints, diagnosis, recent CD4 count, date of HIV diagnosis, date of ART, and date of admission, date of discharge and treatment outcomes and remarks. Data obtained from laboratory results, clinical investigation and direct communication with patients were analyzed.

RESULTS

Among 66 studied subjects, 36 (54.5%) were males and 30 (45.5%) were females. Majority of them were from the age group 31-40 years (49.1%) (Table 1). As high as 24.2% of the patients had CD4 count below 50 cells per cu mm blood. About 6% of admitted cases were newly diagnosed as HIV positive (after admission to hospital) and were waiting for CD4 result (Table 2). Thirty five (53%) cases presented fever as the major clinical presentation of HIV/AIDS due to different opportunistic infections followed by coughing (28.8%), loss of appetite (28.8%), weight loss (27.3%), loose motion (24.2%) (Table 3). Tuberculosis was found to be the major opportunistic infection accounting 27.3% (of which 66.6% were extra pulmonary cases) followed by gastroenteritis (21.2%), and oral candidiasis (15.5%) (Table 4). Regarding the performance of the patients, 83.3% patients were improved and discharged, 16.7% patients had no satisfactory result, 6.6% were unchanged and death occurred in 4.5% (Table 5). Majority (45.0%) of the patients recovered after 5 days stay in hospital (Table 6).

Table 1. Distribution of admitted patients by Age and Gender

Age group (in years)	Male	Female	Total
	No (%)	No (%)	No (%)
1-10	- (-)	- (-)	- (-)
11-20	1 (2.8)	3 (10.0)	4 (6.0)
21-30	10 (27.8)	5 (16.6)	15 (22.7)
31-40	16 (44.4)	15 (50.0)	31 (47.0)
41-50	8 (22.2)	6 (20.0)	14 (21.2)
51-60	1 (2.8)	1 (3.30)	2 (3.00)
Total	36 (100)	30 (100)	66 (100)

Table 2. Distribution of HIV patients of CD4 counts

CD4 range (per cu mm blood)	Male	Female	Total
	No (%)	No (%)	No (%)
1-50	12 (33.3)	4 (13.3)	16 (24.2)
51-100	6 (16.7)	5 (16.6)	11 (16.7)
101-150	4 (11.1)	9 (30.0)	13 (19.7)
151-200	4 (11.1)	4 (13.3)	8 (12.1)
201-250	2 (5.6)	2 (6.70)	4 (6.1)
251-300	1 (2.7)	2 (6.70)	3 (4.5)
> 301	5 (13.9)	2 (6.70)	7 (10.6)
Awaiting results	2 (5.6)	2 (6.70)	4 (6.1)
Total	36 (100)	30 (100)	66 (100)

Table 3. Different types of chief complaints of 66 admitted HIV patients

Chief complaints	No (%)
Fever	35 (53.0)
Coughing	19 (28.8)
Loss of appetite	19 (28.8)
Loss of weight	18 (27.3)
Loose motion (Diarrhoea)	16 (24.2)
Wounds in mouth (oral thrush)	13 (19.7)
Fatigue	12 (18.2)
Paleness of body (anemia)	11 (16.7)
Pain and fullness of abdomen	9 (13.6)
Shortness of breath	8 (12.1)
Nausea and vomiting	7 (10.6)
Swelling of body	4 (6.0)
Dysphasia	4 (6.0)
Itching (Necrotic) rashes in skin and oral mucosa	4 (6.0)
Yellow coloration of sclera and urine	4 (6.0)
Severe pain in joints and muscles	2 (3.0)
Loss of memory	2 (3.0)
Delirium	2 (3.0)
Severe headache	2 (3.0)
Sleeplessness	2 (3.0)
Painful vesicles in arm	1 (1.5)
Rashes in genital area	1 (1.5)

Table 4. Major opportunistic infections and conditions of hospitalized patients

Opportunistic infections	No (%)
Tuberculosis*	18 (27.3)
Gastroenteritis/dysentery	14 (21.2)
Oral candidiasis	10 (15.1)
APD	10 (15.1)
Wasting syndrome	8 (12.1)
Anemia	7 (10.6)
Anxiety/depression	7 (10.6)
Pneumonia	7 (10.6)
Esophageal candidacies	7 (10.6)
AZT induced severe anemia	5 (7.6)
URTI	5 (7.6)
Skin rash/ allergy	5 (7.6)
NVP induced Stephen Johnson syndrome	4 (6.0)
ART induced gastritis	4 (6.0)
Depression/psychosis	2 (3.0)
Malaria (Pf positive)	2 (3.0)
Abscess	2 (3)
Polyarthritis	2 (3)
Toxoplasmosis	1 (1.5)
Cryptococcal meningitis	1 (1.5)
Herpes Zoster	1 (1.5)
Herpes simplex genitalia	1 (1.5)
DCM (dilated cardiomyopathy)	1 (1.5)
RHD (with MS/MR)	1 (1.5)
D4 T30 induced peripheral neuropathy	1 (1.5)

*of the total TB cases, 6 (33.3%) were abdominal TB cases followed by smear positive PTB (22.2%), pleural effusion (16.7%), smear negative PTB (11.0%), gland TB (5.6%), TB meningitis (5.6%) and disseminated TB (5.6%).

Table 5. Treatment outcome of HIV admitted patients

Out come	No (%)
Improved	55 (83.3)
Unchanged	4 (6.1)
Death	3 (4.5)
Referred	2 (3.0)
LAMA	2 (3.0)
Total	66 (100.0)

Table 6. Average hospital stay of admitted patients

Days	No (%)
1-5	30 (45.0)
6-10	21 (31.8)
11-15	7 (10.6)
16-20	4 (6.0)
21-25	3 (4.5)
>26	1 (1.5)
	66 (100.0)

DISCUSSION

The study revealed that the younger age group was most affected by the HIV infection with several forms of OI infections which made them to be admitted in hospital. Younger age group is the most sexually active as well as the most creative, productive and responsible age group means there is the dire need for programs aimed at intervening this trend and protecting this productive age group from such a deadly infection. About 24 % of admitted cases had CD4 count less than 50 and presented severe forms of OIs. Most of the patients were presented with the complaints of high fever (53%), coughing and loss of appetite (28.8%), loss of weight (27.3%) and diarrhea (24.2%) which made them to go to the hospital indoor.

The study revealed that the most common opportunistic infection was tuberculosis (27.3%) followed by gastroenteritis (21.2%), oral candidiasis (15.5%), esophageal candidiasis (10.6%) and pneumonia (10.6%). Treatments of OIs and ART was found to be effective enough to improve the health status of the patients and quality of life because as high as 83.5% recovery (improvement) rate was observed. Up to 5 days stay in hospital with severe forms of OIs can save the life and improve the life of HIV infected patients.

In national level no specific studies were found on admitted HIV patients but several such studies with similar results observed in other countries. A study conducted among admitted HIV patients in Pakistan demonstrated that most common complaints were weight loss (59.6%), fever (42.3%), diarrhea (30.8%) and chronic cough (28.8%).⁶ Another similar study from Nigeria showed that majority of patients had advanced immunosuppression at presentation with fever, weight loss, diarrhea and skin lesions being the most common presenting events.⁷ A recent study from India reported clinical profile of 516 children affected by HIV. In this study common clinical features were fever (36.6%), respiratory infections (31.7%), lymphadenopathy (30%), hepatosplenomegaly (21.8%) and diarrhea (18.1%)⁸ A study from Brazil reported that opportunistic diseases in HIV infected patients have changed since the introduction of highly active antiretroviral therapy (HAART). There was an increase in the prevalence of tuberculosis and toxoplasmosis with a decrease in Kaposi's sarcoma, histoplasmosis and Cryptococcus. A reduction in hospital mortality (42.0% vs 16.9%) occurred.⁹ A similar study in Cameroon showed that the prominent clinical manifestations were persistent fever and diarrhea, excessive weight loss, chronic cough and profound asthenia.¹⁰ The basic principle of ART is that a set of combination of prescribed drugs blocks the replication of virus and hence there is less chance of increasing

the viral load in the body resulting the replacement of CD4 cells thereby prolonging the life of patient. An ambulatory study in ART centre Dhangadhi with low CD4 counts(<50) showed that HAART is effective enough to improve the health status of patients and quality of life because as high as 81.1% survival rate, high adherence and recovery rates were observed.¹¹

CONCLUSION

The hospital admission of HIV patients with severe forms of OIs is effective enough to save and prolong the life and ART is important for good performance. The study revealed that the major opportunistic infection was tuberculosis followed by gastroenteritis with common symptom of fever. On the basis of this study, which reflects the real situation of ART in resource limited setting, it can be recommended that HIV should diagnosed earlier so that ART can be started in appropriate time to minimize the OIs and ART should be extended to other parts of country.

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