



Short Communication

Spectrum of Chief Complaints and Opportunistic Infections among HIV Seropositive Patients Attending A Community Care Center in Nalgonda District, Andhra Pradesh

Misha Gorantla, Kishore Yadav, VM Malhotra

Department of Community Medicine, Kamineni Institute of Medical Sciences, Narketpally, Telangana, India.

Corresponding Author: Misha Gorantla

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ABSTRACT

Background: The human immunodeficiency virus (HIV) infection causes progressive decline in immunological response in patients with HIV/AIDS making them susceptible to several opportunistic infections. Community Care Centers (CCC) were started as a measure to ensure compliance to antiretroviral treatment.

Objectives:

- 1) To study the spectrum of chief complaints among HIV seropositive patients.
- 2) To study the opportunistic infections among the study group.

Methodology: The present cross-sectional study included all patients admitted in a CCC in Nalgonda district during the last quarter of 2012 (n=226). Data was collected using a pre designed and pre tested questionnaire and relevant investigations (CD4 count, sputum examination, stool examination) were performed and recorded.

Results: The study included 133 males and 93 females. Majority of the patients (48.23%) were in the age group of 25-35. In 52 cases (23%) the main complaint was fatigue and malaise followed by fever (16.8%), cough and dyspnoea (15.9%), diarrhea (10.2%), weight loss (9.3%), skin lesion (5.7%), ulcers in oral cavity (2.6%). Most common opportunistic infection was Candidiasis (18.6%) followed by pulmonary Tuberculosis (7.1%), extra pulmonary Tuberculosis (4.4%), Cryptococcal diarrhea (3.54%), Herpes Zoster (2.6%), Dermatitis (2.6%). Mean CD4 count of study subjects was 261.62 with a standard deviation of 73.44. Mean CD4 count was higher in patients with no opportunistic infections 294.5 (SD=±45.1) when compared to those with opportunistic infections.

Conclusion: Fatigue and malaise were the most common presenting complaints. Candidiasis was the most common opportunistic infection. Mean CD4 count was higher in patients with no opportunistic infections when compared to those with opportunistic infections.

Key words: Opportunistic infection, HIV, AIDS, Seropositive patients, CD4 count.

INTRODUCTION

HIV infection is a major public health problem with an estimated 35.3 (32.2–38.8) million people was living with

HIV (Human Immunodeficiency Virus) in 2012, globally. [1] India has a population of 1.2 billion people, around half of whom are adults in sexually active age group. India has

the third highest number of estimated people living with HIV in the world. The HIV prevalence in India was estimated at 0.35% in 2012 according to National AIDS Control Organization (NACO). Andhra Pradesh, with a prevalence of 0.59% has the fourth highest prevalence rate in the country. Sexual route continues to be major mode of transmission though injectable drug use is also emerging as an important mode of transmission in some parts of the country. [2]

World Bank has estimated that the four high prevalence states of South India (Andhra Pradesh, Maharashtra, Tamil Nadu and Karnataka) account for 55% of all HIV infection in the country. This is due to various Socio economic factors as well as stigma associated with HIV. Nalgonda district has prevalence of 1.88 % amongst antenatal mothers. [3]

National AIDS Control Programme Phase III (2007-2012) mandated the establishment of Community Care Centres (CCC). The functions CCCs are providing treatment, care and support to PLHA and ensuring that PLWHA are provided with (i) counseling services for ART adherence; (ii) treatment of opportunistic infections; (iii) referral and outreach activities for follow up and (iv) social support services. [4] These have since been renamed 'care, support and treatment centers' under NACP IV. [5]

Progressive decline in immunity causes HIV patients to become vulnerable to several opportunistic infections. This causes not only adversely affects health of patients but also leads to economic strain and poor adherence arising from 'pill burden'. This study was aimed at assessing the clinical profile with respect to presenting symptoms and common opportunistic infections in HIV positive patients admitted to CCC of KIMS Narketpally for investigation, counseling for drug adherence and treatment of opportunistic infections.

MATERIALS AND METHODS

The present hospital based cross sectional study was conducted between October 2012 and December 2012 (3 months). All new HIV seropositive cases admitted during this period, which included a total of 226 patients, were studied. This study was carried out at Community Care Centre (CCC) of KIMS. Only new registered cases during above period were included. Detailed history, clinical examination and investigations (sputum examination, stool examination and CD4) were done with standard procedures and data thus collected were recorded by using structured proforma.

RESULTS

Out of a total of 226 patients, 133 (58.8%) were males and 93 (41.2%) were females. A total of 187 (82.8%) were in the age group of 15-45 years, the sexually active age group. Distribution of cases according to presenting complaints is shown in Table 1. In 52 cases (23%) the main complaint was fatigue and malaise followed by fever (16.8%), cough and dyspnoea (15.9%), diarrhea (10.2%), weight loss (9.3%), skin lesion (5.7%), ulcers in oral cavity (2.6%).

Mean CD4 count of the study population was 261.6 ± 73.4 . Most common opportunistic infection was Candidiasis (18.6%) followed by pulmonary Tuberculosis (7.1%), extra pulmonary Tuberculosis (4.4%), Cryptococcal diarrhea (3.54%), Herpes Zoster (2.6%), Dermatitis (2.6%). No opportunistic infection was found in 60.2% cases. Mean CD4 count was highest in cases with no opportunistic infections with a mean value of 294.5 (SD= ± 45.1) and lowest in cases of extra pulmonary TB with a mean value of 117.1 (SD= ± 55.9).

Table 1- Distribution of cases according to presenting complaints (N=189*)

Presenting complaints	Number (%)
Fatigue and malaise	52 (23)
Fever	38 (16.8)
Cough and dyspnoea	36 (15.93)
Diarrhea	23 (10.18)
Weight loss	21 (9.29)
Skin leisions	13 (5.75)
Ulcers in oral cavity	6 (2.65)

*Thirty seven cases had came for routine examination.

Table 2- Distribution of study subjects based on opportunistic infections present (N=226)

Opportunistic infections	Number (%)	Mean CD4 count (SD)
Candidiasis	42 (18.58)	239.55 (± 53.41)
Tuberculosis		
Pulmonary	16 (7.1)	214 (± 92.32)
Extra pulmonary	10 (4.42)	117.1 (± 55.89)
Cryptococcal diarrhea	8 (3.54)	167.13 (± 83.17)
Herpes zoster	6 (2.65)	181.5 (± 121.95)
Dermatitis	6 (2.65)	246.33 (± 34.05)
No Opportunistic infection	136 (60.18)	294.5 (± 45.11)

Table 3- Comparison of Percentage of Opportunistic Infections with various other studies

OI	Present Study	Pande S [6]	Zaheer MS [7]	Nair SP [8]	Ayyagiri A [9]	Shobhana A [10]	Mulla SA [11]	Singh A [12]
TB (Pulm. and extra pulm)	11.5	54.7	57.0		36.0		13.8	56.0
Candida	18.6	22.7		16.5	27.8	36.0	19.4	
Cryp Diarrhea	3.5						12.5	43.0
Herpes Zoster	2.6	3.0				6.0		3.0
Skin lesions	2.6	4.9				5.0		

Table 4- Distribution of presenting complaints based on Opportunistic infections present

Chief complaints	Candidiasis	Pulmonary TB	Extra Pulmonary TB	Cryptococcal Diarrhea	Herpes Zoster	Dermatitis	No Ois
Fatigue and malaise	19 (36.5%)	5 (9.6%)	5 (9.6%)				23 (44.3%)
Fever	10 (26.3%)		3 (7.9%)				25 (65.8%)
Cough and dyspnoea		8 (22.2%)					28 (77.8%)
Diarrhea				6 (26%)		3 (13%)	14 (60.9%)
Weight loss	6 (28.6%)	3 (14.3%)	2 (9.5%)	2 (9.5%)			8 (38.1%)
Skin leisions	4 (30.8%)				6 (46.1%)	3 (23.1%)	0
Ulcers in oral cavity	3 (50%)						3 (50%)
Routine examination							35 (100%)

Among the cases having opportunistic infections, patients having candidiasis mainly presented with complaints of fatigue and malaise 36.5%, patients of Pulmonary TB mainly presented with cough and dyspnea 22.2% whereas cases of extra pulmonary TB chiefly presented with fatigue and malaise 9.6%, patients with Cryptococcal diarrhea mainly presented with diarrhea 26%, patients with Herpes Zoster mainly presented with 46.1%, patients with dermatitis chiefly presented with skin leisions 23.1%.

DISCUSSION

Fatigue and malaise (23%) followed by fever (16.8%), cough and dyspnoea (15.9%), diarrhea (10.2%), weight loss

(9.3%) were the major symptoms observed. Our findings are almost similar with study results of Pandey Set al, [6] Zaheer MS et al, [7] However, Joshi HS et al [13] observed fever in 48.6%, cough in 36.4% and weight loss in 58.8% of cases which are lower than those observed in the present study. Epidemiological features depend upon social and cultural practices of the people which may again vary from region to region.

Most common opportunistic infection was Candidiasis (18.6%) followed by Tuberculosis (11.5%), Cryptococcal diarrhea (3.54%), Herpes Zoster (2.6%), Dermatitis (2.6%). These findings were similar to findings of Shobhana A et al [10] and Mulla SA et al. [11] However, studies done by Pande S et al, [6] Zaheer MS et al, [7]

Ayyagiri A et al, [9] found TB to be the most common opportunistic infection in their study.

The pattern of Opportunistic infections in a particular area helps the attending physicians to be on the lookout for them and take prompt therapeutic measures. Simultaneously specific health education of PLWHA regarding early detection of opportunistic infection (OI) and importance of antimicrobial prophylaxis to reduce the morbidity and mortality can be undertaken.

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