Original Article

CLINICAL AND SOCIO-DEMOGRAPHIC PROFILE OF PATIENTS REGISTERED AT ART CENTRE, SMIMER, SURAT

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ABSTARCT

The current study was conducted to understand the clinical and socio-demographic profile of patients attending ART centre of SMIMER. All HIV positive patient came to ART centre, SMIMER were included in the study. Total 2357 patients were registered at ART centre of SMIMER during the study period with an average of 181 newly registered patients every month. Most of the patient were between 20 years to 50years of age, 37% were female, 73% were married and 25% were illiterate. At the time of registration 20% patient were in WHO stage 3 & 4 of AIDS while 56% had CD4 less than 250 cells/mm^3.

Keywords: ART, HIV, AIDS, CD4, WHO Staging of AIDS

INTRODUCTION

Human immunodeficiency virus (HIV) infection and Acquired Immuno-Deficiency Syndrome (AIDS) is threatening the survival of many nations. According to the National AIDS Control Organization [NACO] HIV prevalence in India is 0.36%[1] and people living with HIV are around 2.47 million.[2] The prevalence rate of HIV among adults in Gujarat is 0.38%.[3]

Though, antiretroviral therapy (ART) does not cure HIV/AIDS, but effective ART regimens inhibit the efficient replication of the HIV virus, and reduce viremia to undetectable levels. This leads to slowing of disease progression and fewer opportunistic infections and helps people lead more productive lives, with perceptibly reduced stigma and discrimination. Successes achieved by ART in terms of delaying the onset of AIDS have transformed the common perception about HIV from being a "virtual death sentence" to a "chronic manageable illness".

Appropriate management of OIs is as important as antiretroviral therapy (ART) in preventing mortality and morbidity among HIV-infected persons. The incidence of OI depends on the level of immunosuppression (occurring at CD4 cell counts of < 200/mm3 or total lymphocyte count <1200/mm3), and on the endemic prevalence of the causative agent.

The Government of India launched the free ART programme on 1 April 2004,since than more and more patients are put on ART treatment with rapid expansion of the programme.[4]

The current study was conducted to understand the clinical and socio-demographic profile of patients attending ART centre of SMIMER.

METHODOLOGY

This was a cross sectional study conducted at ART centre in SMIMER hospital which is a tertiary care medical college hospital providing almost all type of speciality care. Surat city and surrounding districts are main catchment area of the hospital. Patients taking services at the hospital are mostly from the poor social economic class. In SMIMER hospital the ART centre is started on 18th January 2010 and registration of patient started on 21st January 2010. All HIV positive patient came to ART centre, SMIMER were included in the study. The

patient's data available at ART centre are used for the study.

RESULTS

Total 2357 patients were registered at ART centre of SMIMER from 20th January 2010 to 10th February 2011. By average, 181 patients newly registered in every month. And

accodingly around 9 new patients registered every working day at the centre.

Results shows that maximum number of patients that is registered were in the month March 2010(518) and after that in February 2010(511). And minimum number of patients were registered in January 2010 and in January 2011.
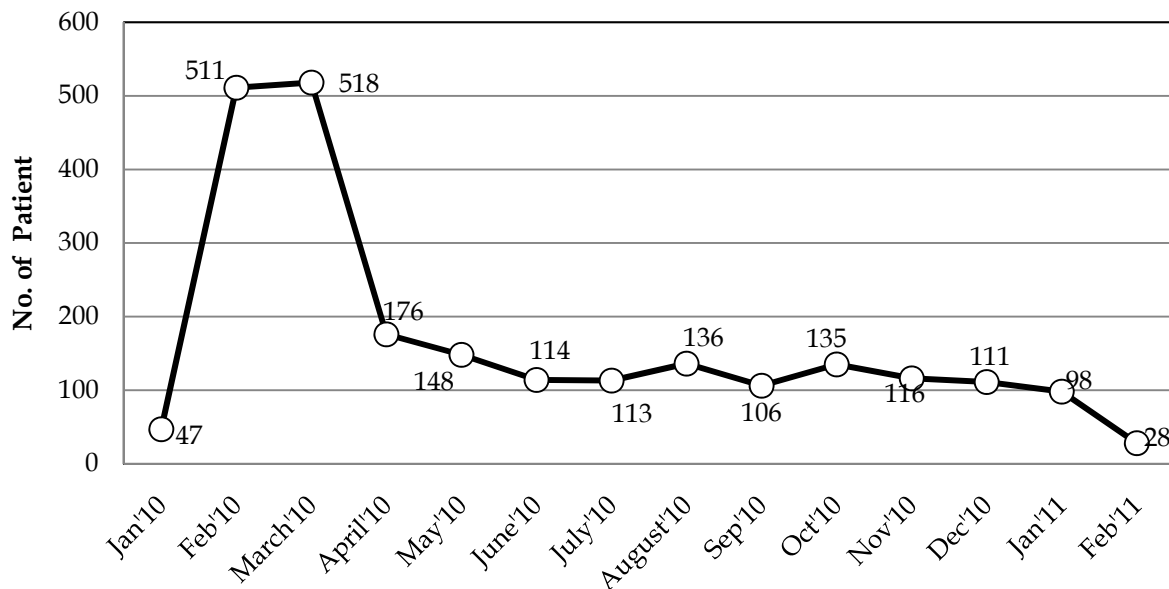
Fig 1: Month wise registration of patients at ART centre

From May'10 to Dec'10, number of newly registred patients were almost steady and ranges between 100 to 150 patients per month.

The ART centre in SMIMER was started on 18th January. And patients that are taking treatment in other ART centre in Surat were transferred in SMIMER as per conviniency of patients. This may be the reason for peaks in Feb'10 and March'10. After regestring maximum patients in first two months, in flow of patients was steady in every month.

Table 1 shows certain demographic and social indicators of patient registred to ART centre. Most of the patient were between 20 years to 50years of age which is economically and social most productive age group. Out of total 862 female patients, maximum 344(39.9%) were from age group of 20 to 30 years. Total 9 transgender were registered during study period. Similar study was done at District Government Wenlock hospital, one of the teaching hospitals attach to Kasturba Medical College Manglore, India[5].

Table 1: Socio-demographic information of patients attending ART centre, SMIMER

Soci-demographic Indicators	No. of Patient (n=2354)	Percent age
Age		
<20 years	122	5.2
20-50 years	2101	89.3
>50 years	131	5.6
Gender		
Male	1483	63.0
Female	862	36.6
TG	9	0.4
Marital Status		
Unmarried	212	9.0
Married	1727	73.4
Divorced	59	2.5
Separated	58	2.5
Widow	296	12.6
Live-in Relations	2	0.1
Education		
Illiterate	582	24.7
Up to primary	971	41.2
Up to Secondary	726	30.8
Graduate & Above	71	3.0

Result of this study shows 64.4% of patients were male, which is consistent with results of our study which shows 63% of male patients. This is similar to the findings in a study conducted in the Udupi District by Kumar A et al [6] Similar observation was made by Sarna A et al[7] and Cauldbeck et al[8] in Banglore, where majority of the attendees were male(84%).

Estimated Adult HIV prevalence in India in 2007 is 0.34% (0.25% - 0.43%) & estimated HIV prevalence among males (0.40%) continues to be higher than among females (0.27%).[3] This might be the reason of higher registration of male

Table 2: Clinical profile of patients attending ART centre, SMIMER

Clinical Indicators	Patient	%
WHO staging of AIDS (n=2327)		
Stage 1	1411	60.6
Stage 2	440	18.9
Stage 3	343	14.7
Stage 4	133	5.7
CD4 count at the time of registration (n=2290)		
≤50 cells/mm^3	176	7.7
51-150 cells/mm^3	563	24.6
151-250 cells/mm^3	538	23.5
251-350 cells/mm^3	371	16.2
>350 cells/mm^3	642	28.0
Past history of Tuberculosis (n=2333)		
Yes	182	7.8
No	2151	92.2
Mobility status on registration (n=2325)		
Ambulatory	194	8.3
Bed-ridden	41	1.8
Working	2090	89.9

Most of the patients registered were married. Around 9% of patients were unmarried. This indicates high-risk behaviour of person in the community. Educational status revealed that most of the patients were having belov primary education. These findings are similar to the study conducted by Jayaram S et al[9] and to the study conducted by Safren SA et al [10] However Cauldbeck et al observed no trends for education level with respect to the seropositivity.[8]

Clinical profile of the patients at the time of registration at ART centre was depicted in Table 2. More than two third patients came to avail ART during the first and second stage of the disease which is a sign of quality referral from ICTC centre and might be due to impact of large scale IEC campaigning at state and national level. However around one fifth PLHA came late in the course of disease which could affect effectiveness of ART drugs and treatment outcome.

CD4 count is one of most reliable investigation for clinical staging of PLHA and used to make decision on treatment initiation along with OIs. 55.8% patient were came to centre with CD4 count less than 250 which need to be put on treatment according to national guideline.

Around 8% patients were having past history of tuberculosis. These patients were at high risk of recurrence of tuberculosis.

90% patients came to centre in physically working condition. Early registration at ART centre will help the clinicians to initiation of ART at optimal time which will help to improve quality and longevity of life of a patient.

REFERENCES

1. www.mohfw.nic.in/NFHS-3 HIV Prevalence.ppt accessed on 27/10/2010]
2. www.unicef.org/india/children_2358.htm [accessed on 27/10/2010].
3. HIV Sentinel Surveillance and HIV Estimation 2007: A Technical Brief; NACO; MOHFW; 23-24
4. Antiretroviral Therapy Guidelines for HIV-infected Adults and Adolescents Including Post-exposure Prophylaxis; May 2007;2).
5. Sanjeev Badiger, Rekha Thapar, Prasanna mithra P, Ganesh Kumar, Animesh Jain, Unnikrishna Bhaskaran, Jayaram Subramanya;A profile of patients attending an Anti Retroviral Therapy (ART) centre at a tertiary care hospital in South India; Australasian Medical Journal (Online) AMJ 2010, 3, 6, 344-348.
6. Kumar A, Kumar P, Gupta M, Kamath A, Maheshwari A, Singh S. Profile of Clients Tested HIV positive in a Voluntary Counseling and Testing Center of a District Hospital,Udupi, South Kannada. Indian Journal of Community Medicine 2008;33(3):156-9.
7. Sarna A, Pujari S, Sengar AK, Garg R, Gupta I, Van Dam J. Adherence to antiretroviral therapy & its determinants amongst HIV patients in India. Indian J Med Res 2008;127,28-36
8. Cauldbeck MB, O'Connor C, O'Connor MB, Saunders JA, Rao B, Mallesh VG, et al. Adherence to anti-retroviral therapy among HIV patients in Bangalore. India AIDS Research and Therapy 2009, 6:7.
9. Jayaram S, Shenoy S , Unnikrishnan B, Ramapuram J, Rao M. Profile of attendees in Voluntary Counseling and Testing Centers of a Medical College Hospital in Coastal Karnataka. Indian Journal of Community Medicine 2008;33:43-6.
10. Safren SA, Kumarasamy N, James R, Raminani S, Solomon S, Mayer KH. ART adherence, demographic variables and CD4 outcome among HIV-positive patients on antiretroviral therapy in Chennai, India. AIDS Care 2005; 17(7): 853-862.