

Original Research Article

Sociodemographic profile of HIV patients at a tertiary care hospital in Goa, India

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ABSTRACT

Background: Despite the improved access to antiretroviral therapy (ART), India accounts for the third largest cases of HIV in the world. Nearly 86% of reported cases are occurring in sexually active and economically productive age group (15-44 years). The current study was conducted to study the socio demographic profile of newly diagnosed HIV patients attending ART centre at Goa Medical College in Goa.

Methods: A hospital based observational retrospective study was carried out in the department of Medicine of Goa Medical College in collaboration with ART centre from October 2015 to January 2016. Patient's relevant data about the infection was collected from their treatment record card at the ART centre using preformed questionnaire.

Results: In the present study out of 211 patients, male patients 112 (53.08%) outnumbered female patients 99 (46.92%). 80.56% of the study group were in the age group of 20-39 years. Although the total number of male HIV positive patients was more, there was also significant increase in the female group. The most common route of transmission was found to be heterosexual (78.67%) followed by blood transfusion route (2.3%). With regard to the level of education, 25%, 69% and 12% of patients had education up to primary, secondary and college level respectively.

Conclusions: Rising number of HIV patients in small state of Goa is alarming and they are likely to contribute to spread of the disease due to rise in migrant population. Better awareness of the disease especially among migrants is utmost necessary to prevent increased number of young population from getting infected. Increasing number of female infected patients warrants us to educate housewives regarding safe sexual practices and contraception in preventing the spread of the disease.

Keywords: AIDS, Goa, HIV, Heterosexual, Sociodemographic

INTRODUCTION

The human immunodeficiency virus (HIV) infection is a global pandemic and presents serious public health problems in the developing countries, like India. Globally over 36.9 million persons are living with the disease.¹ It is the leading cause of adult deaths in the world due to infectious diseases. Despite the improved access to antiretroviral therapy (ART) and care in many regions of

the world AIDS has killed millions of people. According to the National AIDS Control Organization (NACO, New Delhi) the total number of people infected with HIV in India is estimated at 2.14 million in 2017 (compared with 2.1 million in 2015 and 2.2 million in 2007).² India has the third highest number of people living with HIV in the world with 2.1 million Indians accounting for about 4 out of 10 people infected with the deadly virus in the Asia-Pacific region, according to a United Nation (UN) report.

While the percentage of adult population affected by HIV and AIDS may have dropped, in absolute numbers, India's AIDS figure is still substantial and accounts for the third largest in the world.

HIV/AIDS is one of the most serious socioeconomic and developmental concerns, because nearly 86% of reported cases are occurring in sexually active and economically productive age group (15-44 years). Thus for planning effective targeted measures, it is essential to know the socio-demographical pattern of the disease in a particular area. Though numerous clinical/demographic studies have been carried out from across India, limited number of studies has been undertaken in Goa till date.

Therefore, the current study was conducted to study the sociodemographic profile of newly diagnosed HIV/AIDS patients attending ART centre at Goa Medical College. The purpose of the study was to evaluate the clinical and sociodemographic profile of HIV/AIDS patients in Goa with respect to demographic, geographic difference, mode of transmission and literacy status.

METHODS

The present study was a hospital based observational retrospective study. The study was carried out in the Department of Medicine of Goa Medical College in collaboration with ART centre. A total of 211 HIV/AIDS patients were enrolled in the study, based on inclusion and exclusion criteria. The study was conducted from October 2015 to January 2016. The permission from head of institution and clearance from Institutional Ethics Committee was obtained before starting the study. HIV positive patients who were freshly enrolled in ART centre for treatment from July 2014 to July 2015 were included in the study.

Patient's relevant data about the infection, CD4 counts, staging of disease, duration of disease, associated systemic disease, laboratory investigations and treatment were collected from patient's treatment record card at the ART centre. A preformed questionnaire was made to enquire about socio-demographic characteristics such as age, sex, literacy status, marital status, occupation, socioeconomic status and clinical presentation ensuring confidentiality at their homes after informed consent and guarantee of anonymity to the individuals. Confidentiality and privacy was maintained throughout the study, data was stored safely and made accessible only to the researchers. The data was analyzed using mean, standard deviation and Chi-Square test.

Inclusion criteria

All newly diagnosed HIV positive patients excluding paediatric group at either inpatient or at outpatient level who were registered at ART centre of Goa Medical College from July 2014 to July 2015 were included in the study.

Exclusion criteria

Patients who were known case of HIV and who are already on ART, children below 12 years were excluded from the study.

RESULTS

In the present study out of 211 patients, the male patients 112 (53.08%) outnumbered the female patients 99 (46.92%). Male to female ratio was 1.13:1. 170 patients (80.56%) were in the age group of 20-39 years.

Majority of the patients i.e. 196 (92.8%) who attended ART centre were Goans while the remaining ones hailed from other neighbouring states like Maharashtra (3.7%) and Karnataka (2.7%). The district and taluka distribution of patients is depicted in Table 1 and 2 with maximum number of patients from Salcete (20.4%) and Bardez (15.8%) taluka. 12.32% of the study population were migrants.

Table 1: District wise distribution of HIV patients.

District	Number of HIV patients	Percentage
North Goa	84	39.81
South Goa	115	54.5
Other State districts	10	4.7

Table 2: Talukawise distribution of HIV positive patients in Goa.

Taluka	Number of HIV patient	Percentage
Pernem	0	0
Bardez	31	15.81
Bicholim	3	1.53
Sattari	2	1.02
Tiswadi	20	10.2
Ponda	26	13.26
Salcete	40	20.4
Mormugao	22	11.22
Sanguem	6	3.06
Quepem	11	5.6
Dharbandora	3	1.53
Canacona	5	2.5

In the present study out of 211 patients, 138(65.4%) were literate while 73 (34.59%) were illiterate. Among literate, maximum number of patients i.e. 96 (69.58%) were educated up to secondary school. While 25 (18.11%) completed primary school education (Table 3).

The distribution of patients by occupation depicts that majority of patients, who harboured the HIV infection, worked outdoors 142 (67.29%) while 21.32% of the study group worked indoors. 146 patients (69.19%) were married and living with their spouse whereas 18 (10.01%)

were widows and widowers. 28 participants were (13.2%) unmarried and 16 were (7.5%) divorced and separated. Most of the females i.e. 13 (72.12%) were widows. 1.4% of the study group were in live in relationship.

Table 3: Sociodemographic profile of HIV positive patients.

Sociodemographic variables	Number of cases	Percentage
Age in years		
<20	6	2.8
20-39	170	80.56
40-59	28	13.27
60 and above	7	3.31
Sex		
Male	112	53.08
Female	99	46.92
Occupation		
Indoor	45	21.32
Outdoor	142	67.29
Not known	24	11.3
Education		
Illiterate	73	34.59
Primary school	25	18.11
Secondary school	96	69.58
College	6	2.8
Not Known	12	5.6
High risk groups		
Heterosexual	166	78.67
MSM	6	2.11
Blood transfusion	5	2.3
Commercial sex workers	18	8.5
Injection drug abuse	0	0
Unsafe injections	5	2.3
Mother to child	3	1.4
Unknown	8	3.7
Marital status		
Married	162	76.77
Live In	2	1.4
Single	28	13.21
Not known	21	9.9
Spouse HIV status		
Positive	79	40.9
Negative	33	23.3
Not Known	101	35.5

The most common route of transmission was found to be heterosexual in 166 (78.67%) patients whereas 5 (2.3%) patients had given a history of blood transfusion. 18 (8.5%) patients were found to be commercial sex workers while 6 (2.11%) constituted the MSM group. 2.3% of the study group were involved in unsafe injection practices including IV drug abuse. 8 (3.7%) patients were unaware about their route of transmission. Retrospective data was asked regarding HIV status of their spouse. Out of 193 patients, spouses of 79 (40.93%) were HIV positive and

spouses of 45 (23.31%) were HIV negative whereas HIV status of 69 (35.75%) spouses was unknown.

DISCUSSION

The current study was conducted to assess the sociodemographic pattern of HIV infection in Goa as very few studies have been conducted in this state to analyze the same. This study revealed preponderance of male patients which was also observed in the study conducted by Zaheer et al and Singh et al.^{3,4} Although the total number of male HIV positive patients was more; there was also significant increase in the female group. Majority of patients in our study belonged to 20 to 39 years age group. These findings are very much similar to the statistics of study conducted by Kumavat et al who reported that 82% of the cases were in the age group of 15-44 years.⁵ This age group of the population is more affected because they are economically productive, sexually more active.

With regard to the level of education, 25%, 69% and 12% of the patients had studied up to primary, secondary and college level respectively. These findings were in contrast to study conducted by Joshi et al.⁶ This indicates that the level of education is of utmost importance in the prevention of STDs and it is inversely proportional to the incidence of HIV seropositivity. A striking feature in our study has been a large percentage of literate patients had education up to secondary school most probably because of better educational facilities in Goa. The predominant mode of transmission was through unprotected heterosexual intercourse (78.67%). More or less similar findings were reported by Jacob et al (73.3%) and Gupta et al (97%).^{7,8} This study also revealed a significant increase in the number of migrants diagnosed of HIV seropositivity probably contributing to the spread of the disease in the general population. With regard to marital status, the majority of patients were married (69.19%) similar to the study conducted by Jacob et al.⁷ Such high number of married persons having HIV/AIDS was also reported by Jayarama et al (70.3%).⁹ Majority of the patients diagnosed were involved in outdoor occupation such as manual labour, carpentry, farming who could act as mediators of spreading the disease to rural areas, Majority of the working indoors were spouses who are mostly housewives.

CONCLUSION

This study is one of the few studies conducted to analyze the incidence of seropositivity at the tertiary institute in Goa. Goa being considered as a tourist hub witnesses large amount of national and international tourists. Rising number of HIV patients in small state is alarming and they are likely to contribute to spread of the disease due to rise in migrant population. Better awareness of the disease is utmost necessary to prevent increased number of young population from getting infected. As this is the major part of reproductive age group, it significantly

affects the development of the country. Migrant population mostly labourers serve as link from spreading the disease to rural areas. Increasing number of female infected patients warrants us to educate housewives regarding safe sexual practices and contraception in preventing the spread of the disease.

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