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Beyond Communicable Diseases - Understanding the Adverse Habits and their Correlates among HIV Positive Patients on Anti Retroviral Therapy in Raichur Taluk, Karnataka, India

Abstract

INTRODUCTION: Human Immunodeficiency Virus infection not just affects the body but also the mind of the patients leading to depression, suicidal tendencies and loss of interest to live life that takes away the interest of the patients from self-care resulting in neglect and further complications. It is important to note that smoking rates and alcohol consumption among HIV positive patients is higher than the normal population, and thus they face morbidity and mortality risk not just due to HIV related diseases but also due to these abuses. **AIM AND OBJECTIVE:** To assess the presence of substance abuse among the HIV positive adult patients in Raichur Taluk, Karnataka, India; To assess the correlates for these adverse habits **MATERIAL AND METHODS:** Pilot study was carried out among 30 patients to test a set of designed questionnaire. Final sample size was 170. Convenient sampling technique was used. SPSS 16.0 was used to analyze the data. **RESULTS:** The older patients showed a higher percentage of adverse habits. It was higher among males than the females ($p<0.0001$). There was no statistically significant association between marital status, number of children, literacy level, the socioeconomic status, duration of HIV and duration of Anti Retroviral Therapy with the presence or absence adverse habits. **CONCLUSION:** Health staff should be sensitized of this rising concern and provide additional training for counselling and intervention programmes like nicotine replacement therapy for the risk group patients.

Key Words

Tobacco; alcohol; HIV; Anti Retroviral Therapy

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INTRODUCTION

The United Nations Programme on AIDS (UNAIDS) estimates that there are 33.4 millions who are suffering from Human Immunodeficiency Virus (HIV) infection in the world all over. This is 20% more than what it was for the year 2001. In the year 2011-2012, 1.67 lakhs cases of HIV were identified worldwide.[1] HIV is not just a disease affecting the body but also the mind of the patients leading to depression, suicidal tendencies and loss of interest to live life that takes away the interest of the patients from self care resulting in neglect and further complications. People with HIV/AIDS have alcohol/tobacco addictions at large.[2] Kermode M *et al*., reported that depression and stress and tension was a reason to start alcohol among the North East women in India.[3] Sassoon SA *et al*., stated that depression is common among HIV positive patients

Table 1: Distribution based upon the age

Age groups(years)	N	%
<20	4	2.4
20-29	27	15.9
30-39	68	40.0
40-49	58	34.1
50-59	12	7.0
≥60	1	0.6
Total	170	100.0

Table 2: Distribution of HIV positive patients based upon their religion

Religion	N	%
Hindu	146	85.9
Muslim	24	14.1
Total	170	100.0

Table 3: Distribution of HIV positive patients based upon their education

Education	N	%
Illiterate	91	53.5
Literate	79	46.5
Total	170	100.0

Table 4: Association of presence or absence of adverse habits and the gender of the participants

	Absent		Present		Total	
Gender	n	%	N	%	N	%
Male	53	60.2	35	39.8	88	100
Female	77	93.9	05	6.1	82	100
Total	130	76.5	40	23.5	170	100

Table 5: Gender wise distribution of the reasons for continuing the habits

Reason for continuing the habit	Male		Female		Total	
	N	%	n	%	n	%
Physical stress	1	50.0	1	50.0	2	100
Mental stress	7	87.5	1	12.5	8	100
Helps you to remain awake for a long time	2	100	0	0.0	2	100
Time pass	1	100	0	0.0	1	100
Just like that	1	100	0	0.0	1	100
More than one reason	23	88.5	3	11.5	26	100
Total	35	87.5	5	12.5	40	100

due to disturbance in the interpersonal relationship and financial crisis.[4] Stress makes the patients more vulnerable to addictions.[5] Studies have reported high rates of alcohol, tobacco and other substance abuse among the HIV positive patients.[6-14] There are increased risk to risky sexual behaviour due to alcohol abuse and transmission of other diseases.[15-19] The recent advances in Anti Retroviral drugs has made the fight against HIV mortality a success yet we are faced with other hurdles to tackle that include substance abuse among these patients. It is important to note that smoking rates and alcohol consumption among HIV positive patients is higher than the normal population, and thus they face morbidity and mortality risk not just due to HIV related diseases but also due to these abuses.[2,10,17,20-22] Thus a need arises for moving beyond opportunistic infections and concentrating upon the substance abuse among the HIV positive adults. Single, divorced and older adults are more at a risk of substance abuse than the married or the younger population.[20] The two biggest threat to the present health around the world is alcohol and tobacco.[23] The main reasons for abuse could be pain (either physical/ emotional) social support, socioeconomic status and social

policies.[3,5,13, 20, 23-28] Alcohol and nicotine results in poor mental cognitive capacity (both independently as well as in combination), as reported by a number of authors.[9,4,18,23-25,29,30] Alcohol and tobacco are the top 10 leading causes of deaths in the world.[31] People fail to co-relate the alcohol irrational use and risky behaviour, so they do not feel the need to get a screening for HIV done.[15] Both alcohol use and depressive symptoms resulting out of depression affect not only the disease pattern but also the disease progression.[16] Hence the present study is a unique attempt to understand the tendency of substance abuse among the HIV positive patients in Raichur Taluk, Karnataka, India and the factors associated with it.

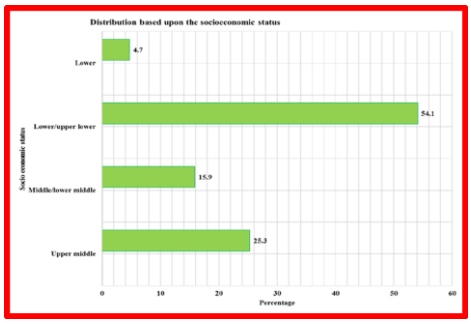

Fig. 1: Distribution of the HIV positive patients based upon their socioeconomic status

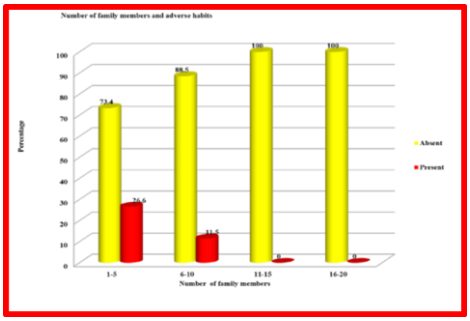

Fig. 2: Number of family members and the presence or absence of adverse habits

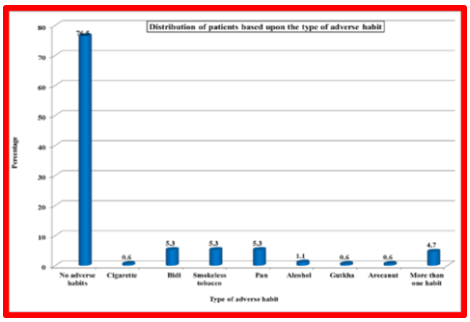

Fig. 3: Type of adverse habits present in the HIV positive population

MATERIALS AND METHOD

The study was carried out among the HIV positive adult patients seeking Anti Retroviral Therapy regime at the Anti Retroviral Therapy centre of Raichur Taluk, Karnataka, India. Ethical clearance was obtained prior to the study from the institutional review board of Navodaya Dental College and Hospital, Raichur. Permission was also obtained from the authorities of the Anti Retroviral Therapy centers Raichur taluk, Karnataka. The study was a cross sectional one with pre-tested, structured questionnaire applied on 30 patients as a part of the pilot study. Based upon the findings of the pilot study final sample size of 170 was decided. The samples from the pilot study were not included in the main study. Written consent was obtained from all the patients after explaining the procedure. All patients above 18 years of age and on Anti Retroviral Therapy were included in the study. Convenient sampling technique was used. The information related to tobacco (smoking and smokeless), alcohol, pan (with and without tobacco), betel nut and gutkha was recorded. After data collection, patients with substance abuse were given health education about the ill effects of these substances and their alteration on the effects of the Anti Retroviral drugs. The collected data was tabulated and subjected to statistical analysis using SPSS 16.0 software.

RESULTS

There were in all 170 HIV positive patients in the final study, of which 88 (51.8%) were males and 82 (48.2%) were females. Table 1 shows the age wise distribution of the participants. One hundred and sixty five (97.1%) of the patients were married and 05 (2.9%) were unmarried. Fig. 1 shows the distribution of the HIV positive patients based upon their socioeconomic status (Kuppuswamy Scale 2012). Of the 170, 91(53.5%) were positive since 1-3 years, 65 (38.2%) were positive since 3.1- 6.0 years and 14 (08.3%) were positive since 6.1- 9.0 years. One hundred and two (60.0%) patients were on Anti Retroviral Therapy since 1-3 years, 56 (32.9%) since 3.1- 6.0 years and 12 (7.1%) patients since 6.1-9.0 years. Among the total 170 participants, 40 (23.5%) had adverse habits in one or the other form and it was absent among 130 (76.5%). The older patients showed a higher percentage of adverse habits but there was no significant association between age and adverse habits. Table 4 shows the association between gender and adverse habits. It was higher among males than the females and this difference was statistically significant ($p<0.0001$). There was no statistically significant association between marital status, number of children, literacy level, the

socioeconomic status, duration of HIV and the duration of Anti Retroviral Therapy with the presence or absence adverse habits. Higher df =1, p=0.04) (Fig. 2). The maximum habits found were that of bidi and smokeless tobacco and the lease were gutkha and arecanut. Fig. 3 shows the type of adverse habits present in the HIV positive patients. Reasons for continuing the habit included as shown in Table 5. Of the 35 males who had some or the other form of adverse habit, 11 (31.4%) tried to quit the habit and 24 (68.6%) did not make any attempt. All the five females did not try to quit the habit. There was also no statistically significant association between the attempts to quit the habit. 40% of the patients who reported of adverse habits have knowledge that these are potent carcinogenic in nature. Also some even after the knowledge of the same still continued with the habit due to the reasons mentioned in the above tables. Only 12.5% received any form of help and assistance from family and friends to quit the habits. Four males reported of disputes in the family due to their adverse habit(s), of which three (75.0%) were addicted to bidi as well as alcohol and one (25.0%) was addicted to pan chewing

DISCUSSION

In the present study, 40 (23.5%) were addicted to one or the other form of adverse habits. Only 5.9% of the total had only smoking habits, lesser than the population in Thailand (34.3%)[32] and Nepal (63.0%).[33] It was more than the findings of a study in Tanzania (4.4%).[34] In this study 5.3% chewed only tobacco which was lesser than the findings of the study in Nepal,[33] where 53.0% of the HIV positive patients chewed tobacco. The alcohol consumption in our study was only 1.1% and that too in men, whereas the studies in Thailand (23.5%)[32] and findings of the study in Nepal (14.0%)[33] and in Tanzania (13.9%)[34] were comparatively higher. It was also less than the study in Russia, where 9.0% of the hospitalized patients consumed only alcohol daily.[35] The lesser findings in our study could be due to reporting bias. These studies unlike ours did not compare the abuse with other parameters. As far as Indian studies are reported, ours is the first kind to enumerate and correlate the causative factors that drive the patients to abuse. Past studies have mentioned that irrational alcohol abuse is not just related to a risky behaviour but also it is a major causative factor for acquiring HIV and other sexually transmitted infections.[9,12,15,17,19,20,30,29,31] We though did not find percentage of adverse habits was absent among those who had 11 or more family members and this was found to be statistically significant ($\chi 2 = 4.04$, any association with duration of illness, duration of Anti Retroviral Therapy regime and family support, the interplay of these factors cannot be neglected just because of lack of specific numbers. Those patients with 11 or more family members did not have any adverse habits, this could be due to the financial constrains that prevent the individuals from spending. Most of the literature evidence focuses on intervention and follow ups, hence a direct comparison of such studies with ours could not be done. The study highlights the probable causes of substance abuse in an interior set up like Raichur taluk, one of the most underdeveloped sections of Northern Karnataka, India. People reporting to the centers are mainly from the low socioeconomic status and reportedly have a number of qualms regarding HIV infection. Hence data form studies carried out in cities cannot be applied and held to be true for such a small taluk and rural oriented population. Our findings are consistent with the previous studies that have highlightened the increased presence of adverse habits among the low socio economic sections of HIV positive patients.[3,4,13,20,22,24,26]

The study has certain limitations-

1. Convenient sampling was followed, since set up limitation was a problem. People reported form far off rural areas, not all agreed to spare time. Also since no incentives to participate in the study were provided, reluctance and ignorance was a common response.
2. We relied wholly on the information provided by the patients at the Anti Retroviral Therapy centers regarding their adverse habits. The data was collected in presence of the personnel at the Anti Retroviral Therapy centre. There is always a possibility of reporting bias creeping in the study.
3. Though health education was provided and sensitization was done, follow up of these patients to check the efficiency of one to one counselling could not be done due to time and manpower constraints.
4. The study involved only those who reported to the center for drugs. Data could not be obtained for those patients who were defaulters and did not report to the center for further regime, since addictions could be a factor interfering with their adherence to Anti Retroviral Therapy drugs

and also multiplication of the HIV-1 virus in the system, leading to further health deterioration.[7,14,18]

RECOMMENDATIONS

Health care providers need to understand the complexity of the alcohol and tobacco abuse among the HIV positive patients. It results into, increased lower respiratory tract infection,[35] lung cancer,[10] increased neuroaids,[7,19] impaired cognitive capacity[4,8,9,19,23,29,30] increased vulnerability to sexually transmitted infections like gonorrhea, syphilis, Chlamydia and trichomoniasis,[20] increased risk of developing chronic obstructive pulmonary disorder[26] and a resultant poor quality of life.[4,8,9,19,21]

So on the basis of these findings we need-

1. Continuous screening and testing of HIV positive patients and the risk group patients for substance abuse.
2. Reinforcement of health education and counselling.
3. More number of people with a specialized degree in psychiatric and social work to be specially assigned for this task.
4. Ban on the sale and procurement of all such products in any form.
5. Advertisements and awareness campaigns especially in the rural areas that have more illiterate and yet vulnerable population.
6. Special task force on the same lines of the western countries for interventions at various levels.
7. Nicotine replacement therapies to be made available at lesser costs or free of cost.
8. Further clinical studies to explore options related to pharmacological and non pharmacological therapies under the Indian Council of Medical Research (ICMR) guidelines in the Indian set up.
9. Exploiting the availability of Public Health Medical as well as Dental Professionals for meeting the set goals.

CONCLUSION

The study adds to the existing literature of the presence of substance abuse in different forms among HIV positive adult patients on Anti Retroviral Therapy in India. Relying heavily on only Anti Retroviral Therapy regime will increase the patient's lives but if such adverse habits are ignored they surely will result in morbidity and mortality. Also these increase the economic and disease burden further and lessen the general quality of life of the patients. Health staff should be sensitized of this rising concern and provide additional training for counselling and intervention programmes like nicotine replacement therapy for the risk group patients.

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