



A STUDY OF 395 NEWLY DIAGNOSED HIV POSITIVE GERIATRIC CASES

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ABSTRACT This retrospective study of newly diagnosed HIV infection in patients in the geriatric age group (60 years and more) was carried out in the ART Plus Center of a tertiary care Medical College. 395 of the 13329 registered HIV positive cases belonged to this group (2.96 percent). Though this group forms a small proportion of the total cases and is much smaller as compared to that in Western countries, it emphasises the need to step up awareness and testing in the geriatric age group too, especially in those below 70, who are likely to be sexually active but may not practice safe sex.

KEYWORDS : Geriatric, AIDS, CD4, WHO staging, safe sex.

INTRODUCTION:

This retrospective study, based on records, depicts the incidence, demographic profile and outcome of newly diagnosed HIV positive Geriatric patients (sixty years and above), registered in the tertiary care Medical College.

AIDS was first recognized in the United States in 1981, when CDC reported the unexplained occurrence of Pneumocystis jirovecii pneumonia and Kaposi's sarcoma (KS) in 26 previously healthy homosexual men.¹

Older people represent a growing share of the HIV population. There are three types of older persons with HIV: 1) People who acquired the infection earlier but have been living on ART for many years and are now in the geriatric age group. 2) HIV-infected geriatric persons who were asymptomatic since many years but are recently diagnosed. 3) Geriatric persons who are newly infected with HIV. The predicted life expectancy of people living with HIV is 75 years. Hence the number of HIV infected elderly is on the rise.

Sexual contact is the most common mode of HIV transmission even in adults over 50.

Many older adults lack sufficient knowledge about transmission and perceive themselves to be at low risk. Older adults demonstrate low levels of HIV testing, delayed HIV diagnosis and treatment and inconsistent condom use. Sexual history may not be routinely obtained from older patients as both the doctors as well as the older patients may not be comfortable discussing this aspect.

Vaginal dryness is common among menopausal women, potentially leading to vaginal abrasions that increase the risk of HIV infection.

Treatment of HIV and age-related co-morbidities simultaneously can have a synergistic effect that leads to increased immune-suppression, altered T-cell functioning, muscle loss, decreased bone density and more side effects.

MATERIALS AND METHODS:

This retrospective study is based on records obtained from the ART plus centre. The records are in the form of white cards (of all patients) that are maintained in the ART plus centre and the

monthly reports that have to be sent to MSACS (Maharashtra State AIDS Control Society).

- Confidentiality was maintained strictly.

OBSERVATION AND RESULTS:

Table no 1: Age distribution of HIV Positive Geriatric

Age	No. of Patients
60-64	211(53.4%)
65-69	150(37.9%)
70-74	26(6.6%)
75-80	3(0.7%)
>80	5(1.3%)

Out of the total 13329 patients registered in the ART plus center of this tertiary care hospital, from 2006 to Dec 2015, 395 cases were, sixty years old and above (2.96% of the total registrations). Of these 395, the maximum number of patients (211) belonged to the age group of 60-64 (53.41%) followed by 150 in the age group of 65-69 (37.9%). Thus 361 / 395 patients (91.4%) were in the age group of 60 - 69 years. There were 26 patients (6.5%) in the age group of 70-74 and 5 patients who were older than 80 years (1.3%).

Graph 1: Age distribution of HIV Positive Geriatrics:

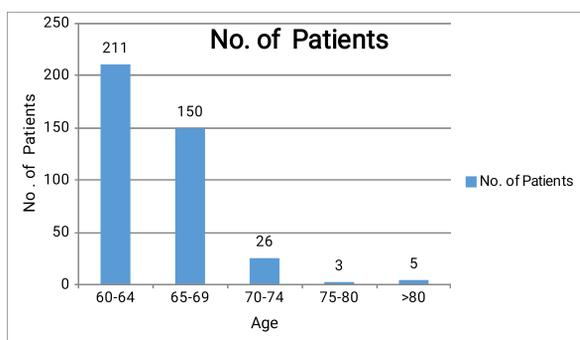


Table 2: Sex distribution of HIV Positive Geriatric

SEX	No. of Patients
MALE	120(30.4%)
FEMALE	275(69.6 %)
TOTAL	395(100%)

Out of the 395 cases of HIV infected patients 60 years and above, there were 275 females (69.6%) and 120 males (30.4%).

Graph 2: Sex distribution of HIV Positive Geriatric

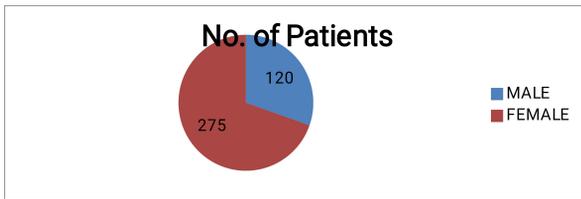
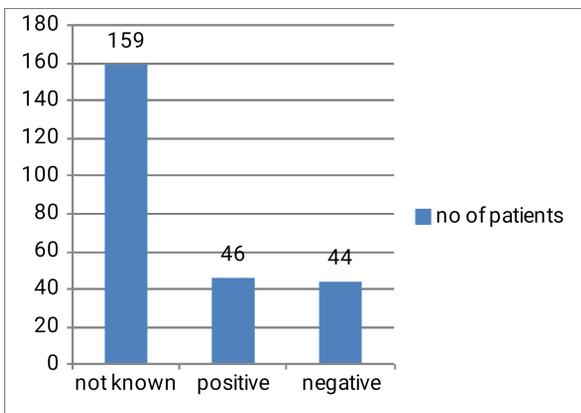


Table 3 : HIV status of spouse of geriatric HIV positive patients

Not known	Positive	Negative	Total Data Available (No. of cases)
159	46	44	249

Graph 3: HIV status of spouse of geriatric HIV positive patients

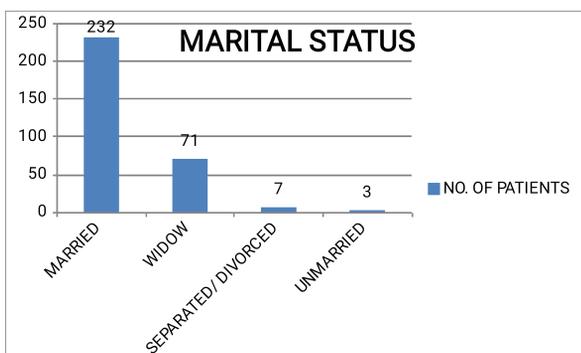


We could get information of HIV status of spouse of 249 out of 395 patients. The spouses of 46 patients were confirmed HIV positive. 44 were confirmed HIV negative. 159 out of 249 spouses could not be tested (because they were dead/were separated/not willing)

Table 4: MARITAL STATUS of HIV Positive Geriatric

MARITAL STATUS	NO. OF PATIENTS
MARRIED	233 (74.2%)
WIDOW	71(22.6%)
SEPARATED/ DIVORCED	7(0.02%)
UNMARRIED	3(0.009%)
TOTAL	314 (100%)

Graph 4: MARITAL STATUS of HIV Positive Geriatric



The record of the marital status was available in 3/4th cases.

Table 5: OCCUPATION of HIV Positive Geriatric

OCCUPATION	NO. OF PATIENTS
LABOUR	144 (36.4%)
RETIRED / NOT WORKING / UNEMPLOYED	104 (38.5 %)
HOUSEWIFE	42.(10.6%)
SELF EMPLOYED	40(10.1%)
SERVICE	15(3.7%)
TRANSPORT WORK	2(0.5%)

144 (36.4%) patients were farm labourers. 42 (10.6 %) women were housewives (homemakers). 104 patients(38.5 %) were not doing any work now. Of these, 69 were working as labor earlier and 35 had retired from service. Only 2 of these 395 patients had been involved in transport work in the past.

Table 5: OCCUPATION of HIV Positive Geriatric

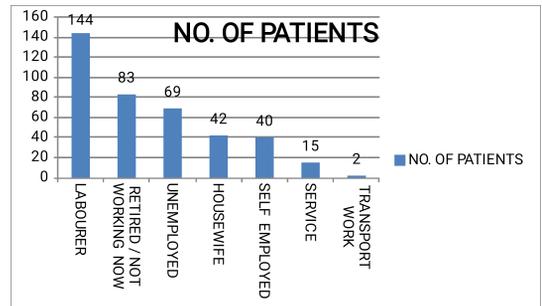


Table 6: Baseline CD4 count

BASELINE CD4 COUNT	NO OF PATIENTS
0-50	51(12.9%)
51-100	69(17.5%)
101-150	53 (13.4%)
151-200	48(12.2%)
201-250	31(7.8%)
251-300	30(7.6%)
301-350	23(5.8%)
351-400	29(7.3%)
401-450	11(2.7%)
451-500	9(2.3%)
501-750	21(5.31%)
751-1000	13 (3.3%)
>1000	4(1%)
Total	395

As per the NACO guidelines at the time of this study, a CD4 count below 350 was one of the criteria for starting treatment. The baseline CD4 count was less than 200 in 221 out of 395 cases (56 %) . If was above 350 in 107 patients. It was more than 1000 in 4(1%) cases.

Graph 6: Baseline CD4 count of HIV Positive Geriatric

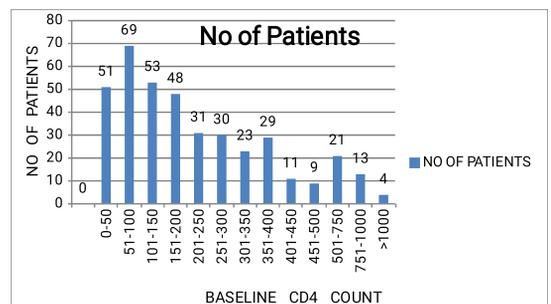


Table 7: WHO Staging of HIV Positive Geriatric

WHO stage	No. of Patients
I	189(56.1%)
II	41(12.1%)
III	37(10.9%)
IV	30(8.9%)

WHO staging is available for 297 patients, of these, 189 (56.1 %) belonged to WHO stage I, 41(12.1 %) were in stage II, 37(10.9%) were in stage III and 30 (8.9%) were in stage IV.

Graph 7: WHO Staging of HIV Positive Geriatric

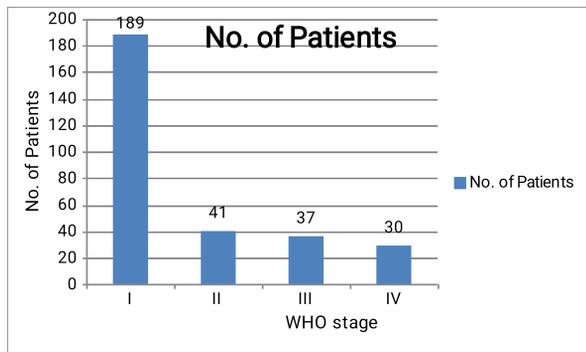
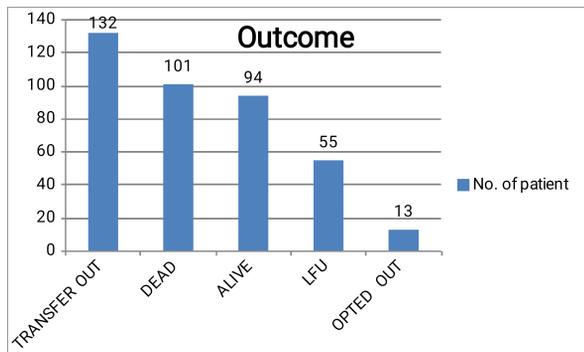


Table 8: Outcome of HIV Positive Geriatric patients

Outcome	No. of patient
TRANSFER OUT	132 (33.4%)
DEAD	101 (25.6%)
ALIVE	94(23.8%)
LOST TO FOLLOW-UP (LFU)	55(13.9%)
OPTED OUT	13(3.2%)

Of the 395 patients, 97 come to this ART centre for examination and treatment, of whom 79 are on regular ART. 132 have been transferred out to their respective ART centers, 101 have died, 55 have been lost to follow-up, 13 have opted out (refused to take treatment in spite of counseling).

Graph 8: Outcome of HIV Positive Geriatric patients



DISCUSSION:

In the geriatric age group also, unprotected sex with an infected person seems to be the commonest cause, just as it is in the young. Older persons are more likely than younger to be diagnosed with HIV infection late in the course of their disease.

Many older persons are sexually active, and have a lack of knowledge about HIV and how to prevent it, and may have multiple partners. Compared to studies from US(2,3), that say that nearly one fourth of their patients fall in the older group, the number of our geriatric patients is less. This could be because

1. They have included persons above 50, whereas our cut- off is 60 years and above.
2. Persons in developed countries are far more likely to get tested.
3. Exposure to risk may be higher in Western countries.
4. Patients in developed countries may live much longer.
5. We have only included patients who first presented with HIV infection at the age of 60 or above. ART has been available at our center since 2006, but this study does not include the few younger patients who may be in their sixties now. In that sense, these 395 are all new patients, detected for the first time. This may be another reason why the numbers appear lower than in other reports(2,3,4)

Out of the 395 cases of HIV infection of patients 60 years and above,

there were 275 females (69.6%) and 120 males (30.4%). There is an overwhelming proportion of women in this study (more than two third). This is an emerging trend. Of the 275 women, 71 were widows. It is likely that their spouses had HIV and transmitted the infection to them. It is not advised by NACO to take the sexual history of patients and taking such a history is a particularly sensitive issue among geriatric females in our culture. We presume that the infection may have been acquired from the spouse. There was no obvious CSW (commercial sex worker) among these patients, as per records.

Older women with HIV are likely to face more serious socio-economic and psychological problems. However, we have observed in many cases that sons and even daughters-in-law, grandchildren, take care of them. They accept that the infection may have been acquired from the spouse and they are not judgmental. This is a welcome change from the previous decade when cases of HIV used to be abandoned when they were admitted to hospitals and shunned by society. However, even today, the stigma and shame still persists. Some do not have knowledge about the illness and it can be a blessing in disguise.

By definition, a CD4 count that is less than 200 is considered as one of the criteria for diagnosing AIDS. A count less than 350 was till recently considered for starting anti- retroviral therapy as per NACO guidelines. It was above 350 in 107 patients. The baseline CD4 count was less than 200 in 221 out of 395 cases (56.01%) .

The baseline CD4 count at diagnosis was lower than 200 in 221 cases, which means that these patients are considered as AIDS and not just HIV positive in more than half of the patients (56.01%), showing that patients often present late in the course of illness.

WHO staging is available for 297 patients, of these, 189 (56.1 %) belong to WHO stage I, 41(12.1 %) were in stage II, 37(10.9 %) were in stage III and 30 (8.9%) were in stage IV.

1. Sexual contact is the most common mode of HIV transmission in the geriatric group too. While they had a regular partner they may have ignored HIV prevention messages. Many older adults lack sufficient knowledge about transmission and perceive themselves to be at low risk.
2. Older adults demonstrate low levels of HIV testing, delayed HIV diagnosis and treatment, and inconsistent condom use. Because birth control is unnecessary after menopause, older adults may be unfamiliar with or reluctant to use condoms.
3. Vaginal dryness and thinning is also common among menopausal women, potentially leading to vaginal abrasions that increase the risk of HIV infection.

SUMMARY & CONCLUSIONS:

1. In this study, patients who were diagnosed to be HIV positive for the first time in their lives at or more than 60 years of age were included
2. Out of the total 13329 patients registered in the ART plus center from 2006 to Dec 2015, 395 new cases were sixty years and above (2.96% of the total registrations) . Of these 395, the maximum number of patients (211) belonged to the age group of 60-64 (53.41 %) followed by 150 in the age group of 65-69 (37.9 %) . Thus 361 / 395 patients (91.4 %) were in the age group of 60 - 69 years.
3. There were 275 females (69.6%) and 120 males (30.4%).
4. 71 of the 275 female patients are widows. The HIV status of their spouse is not known. 233 live with their spouses, whereas 7 are separated and 3 never married.
5. 144 (36.4%) patients were farm laborers, 42 (10.6%) women were housewives (homemakers). 104 patients (26.3%) were not doing any work now. Of these, 69 were working as labor earlier and 35 had retired from service. Thus labor work was the commonest occupation. Only 2 of these 395 patients had been into transport work in the past.
6. The baseline CD4 count was less than 200 in 221 out of 395 cases (55.4%), showing that patients often present late in the course of illness.
7. Of the 395 patients, as of now, 97 come to this ART centre for examination and treatment, of whom 79 are on regular ART. 132 have been transferred out to their respective ART centers, 101 have died, 55 have been lost to follow-up, 13 have opted out (refused to take treatment in spite of counseling)

Though the proportion of geriatric patients getting registered for the first time in the ART center is small (only 2.96% of the total registrations), it is significant because it emphasizes the need for clinicians to suspect HIV even in Geriatric patients. It also emphasizes the need to step up health education and safe sex among older persons. Majority of these patients were less than 70 years of age and may have acquired the infection in their fifties and sixties.

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