

# Menopause in People Living with HIV

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## ABSTRACT

HIV and AIDS has become a major public health challenge and India has the third largest HIV epidemic globally. A large proportion of new infections are occurring in women who are married and are infected by husbands frequented by sex workers. One of the harsh consequences of AIDS epidemic in India is the increasing number of HIV positive widows. The menopausal transition in PLHIV is different owing to the gonadal dysfunction.

**Methodology:** Hence, a cross-sectional study was conducted amongst 30 PLHIV women. A semi-structured questionnaire was used to collect general health related data, socio-demographic data and contact history for TB. All the participants were screened for TB by 4s screening method. Details about menopause and its symptoms were enquired.

**Result:** A total of 30 PLHIV were studied. All the participants were female and widowed. All the participants were positive for HIV and had history of acquiring the infection from their positive partners. All the PLHIV were on Anti retro viral treatment for HIV. Screening for TB by 4S symptom screening method was done and it was negative in all the PLHIV. Around 33% PLHIV had <10 years duration of HIV infection and 67% had > 10 years duration of HIV infection. CD4 T cell Count was below 350 in 13% PLHIV, 53% had CD 4 count between 350-700 and 34% had above 700 CD 4 T Cell count. Almost half of the PLHIV had menopause in their forties whereas half had menopause between 41-50 years of age. In 2/3<sup>rd</sup> PLHIV, transition period was less than 6 months.

**Conclusion:** In the present study almost half of the women had experienced menopause in their forties. In women living with HIV, an intricate relationship between HIV and menopause appears to exist in that HIV may influence the natural history, experience, and complications of menopause, while menopause itself could potentially influence the course of HIV infection. This bidirectional relationship between HIV infection and menopause confers an additional layer of complexity to the ongoing management of HIV-infected women as they age, and presents new and vaguely understood challenges for clinicians.

**Key-words:** People living with HIV, Menopause, TB, CD4 T cell count

## INTRODUCTION

HIV and AIDS has become a major public health challenge and India has the third largest HIV epidemic globally.<sup>1</sup> According to the National AIDS Control Organization, HIV prevalence among adults was an estimated 0.2% in 2017 which equates to 2.1 million people living with HIV.<sup>2</sup> Around 40% HIV infected individuals in India are women accounting for around a million of the approximately 2.1 million PLHIV. A significant proportion

of new infections are occurring in women who have been infected by partners.<sup>3</sup>

Women are more vulnerable to HIV and AIDS compared to men owing to factors such as poverty, early marriage, trafficking, sex work, migration, lack of education and gender discrimination. A large proportion of new infections are occurring in women who are married and are infected by husbands frequented by sex workers. One of the harsh consequences of AIDS epidemic in India is the increasing

number of HIV positive widows<sup>3</sup>.

With the advent of the highly active retro viral treatment, good adherence and improved side effect management, HIV has converted into a chronic infection with PLHIV enjoying good health while being exposed to the natural process of ageing. The process of ageing differs in PLHIV compared to non PLHIV. As a result, many women with HIV survive to experience menopause. Menopause and coping with the ongoing menopausal symptoms are another challenge for women who are already facing the dearth of HIV infection especially given the ramification for sexual behavior<sup>4</sup>.

The menopausal transition in PLHIV is different owing to the gonadal dysfunction. PLHIV women have lower levels of anti-mullerian hormone which is a biological marker of ovarian reserve. The number of CD4 T cell counts correlates with the levels of anti mullerian hormone.<sup>4</sup> Hence, a need was felt to study the menopause transition in PLHIV women especially who are widow.

## METHODOLOGY

A cross-sectional study was conducted amongst 30 PLHIV women. This was a pilot project of a large project titled role of yoga therapy against TB in PLHIV. Study was conducted with the help of Kaira social service society organization at St Xavier's college, Ahmedabad. PLHIV who were not suffering from TB, mentally fit, who gave consent and not suffering from other morbid conditions were included in the study. A semi-structured questionnaire was used to collect general health related data, socio-demographic data and contact history for TB. All the participants were screened for TB by 4s screening method. Details about menopause and its symptoms were enquired. Ethical permission for the study was obtained from Ethical committee, Smt. NHL MMC, Ahmedabad. Written informed consent was obtained prior to the study from all the participants. All the data was analyzed using SPSS 26.0 version.

## RESULTS

A total of 30 PLHIV were studied. All the participants were female and widowed. All the participants were positive for HIV and had history of acquiring the infection from their positive partners. The modes of infection in partners were sex workers. Contact history of TB was significant in two PLHIV and had completed the treatment for TB. All the PLHIV were on Anti retro viral treatment for HIV. Screening for TB by 4S symptom screening method was done and it was negative in all the PLHIV. Two PLHIV were taking IPT treatment as a prophylaxis.

Twenty percent PLHIV were less than forty years of age and eighty percent were above forty. Around 13% PLHIV were illiterate, 67% had primary education and 20% had secondary education. About 20% PLHIV were working as tailor, cook and vegetable vendor, 27% were working as maid and 13% were engaged in Gruh udhyog. Around 33% PLHIV had <10 years duration of HIV infection and 67% had > 10 years duration of HIV infection. CD4 T cell Count was below 350 in 13% PLHIV, 53% had CD 4 count between 350-700 and 34% had above 700 CD 4 T Cell count. Almost half of the PLHIV had menopause in their forties whereas half had menopause between 41-50 years of age. In 2/3<sup>rd</sup> PLHIV, transition period was less than 6 months. (Table 1)

Vasomotor symptoms like hot flush and night sweats were seen in 80% and 47% PLHIV respectively. Eighty percent PLHIV suffered from psychosomatic symptoms like sleep disturbance, irritability and headache. Around half of the PLHIV had symptoms such as tiredness, dizziness and anxiety. Less than 30% PLHIV had palpitation and flatulence. Psychological symptoms such as poor memory and poor concentration were observed in 40% and 47% PLHIVs respectively. Urinary symptoms were present in more than half of the PLHIV. Sexual complaints were observed in 60% PLHIV. Weight gain was seen in 33% PLHIV. (Table 2)

**Table 1: General Health Data of PLHIV (n=15)**

Variable		Number	Percentage (%)
Age in years	<40	6	20
	>40	24	80
Education	Illiterate	4	13.3
	Primary	20	66.7
	Secondary	6	20
Occupation	Tailor	6	20
	Maid	8	26.7
	Cook	6	20
	Vegetable vendor	6	20
	Gruh udhyog	4	13.3
Duration of HIV in years	< 5	2	6.7
	5-10	8	26.7
	11-15	16	53.3
	>15	4	13.3
CD4 T cell count cells/cu. Mm	<350	4	13.3
	351-700	16	53.3
	701-1000	8	26.7
	>1000	2	6.7
Age at menopause in years	<40	14	46.7
	41-50	16	53.3
Transition period in months	<6	26	86.7
	7-12	4	13.3

**Table2: Symptoms related to menopause (n=15)**

	Yes (No.)	Percentage (%)	No (No.)	Percentage (%)
Hot flush	24	80	6	20
Night Sweats	14	46.7	16	53.3
Sleep disturbance	26	86.7	4	13.3
Muscle pain	18	60	12	40
Irritability	24	80	6	20
Tiredness	16	53.3	14	46.7
Palpitation	8	26.7	22	73.3
Headache	24	80	6	20
Dizziness	12	40	18	60
Flatulence	10	33.3	20	66.7
Anxiety	14	46.7	16	53.3
Poor concentration	14	46.7	16	53.3
Poor memory	12	40	18	60
Increase frequency of urine	20	66.7	10	33.3
Burning micturition	10	33.3	20	66.7
Dryness of vagina	18	60	12	40
Decrease libido	20	66.7	10	33.3
Weight gain	10	33.3	20	66.7

## DISCUSSION

In addition to the marked changes in morbidity and life expectancy, the HIV epidemiology has seen an escalating impact on women. The vulnerability women experience related to HIV is complex in terms of both the causes and consequences of infection. In earlier stages of the pandemic, the principal concerns of the HIV infection were related to sexual and reproductive health. Now with the advent of the highly active anti retro viral treatment the onus of the infection has shifted to the problems related to ageing. More and more HIV infected women are seeing menopause.<sup>5</sup>

In the present study almost half of the women had experienced menopause in their forties. The World Health Organization defines natural menopause as the permanent cessation of menses. Natural menopause typically occurs between age 50-52 years. Menopause is a complex phenomenon that is uniquely experienced by each woman and is associated with various biological and psychosocial changes along with array of physical and psychological symptoms.<sup>6</sup> Calvet et al in their study found average age at menopause to be 48 years. Fantry et al reported 35% PLHIV had an early menopause. Schoenbaum et al found that 26% PLHIV experienced premature

menopause. Clark et al found mean age of menopause as 47 years.<sup>5</sup>

In women living with HIV, an intricate relationship between HIV and menopause appears to exist in that HIV may influence the natural history, experience, and complications of menopause, while menopause itself could potentially influence the course of HIV infection. This bidirectional relationship between HIV infection and menopause confers an additional layer of complexity to the ongoing management of HIV-infected women as they age, and presents new and vaguely understood challenges for clinicians.<sup>7</sup>

As women with HIV transition through menopause, the progression of their infection and response to treatment in the setting of altered reproductive hormones is a key consideration. Older patients with HIV who are not on cART have lower baseline CD4 counts than younger patients. In the present study, the CD4 T cell count of almost two third patients were above 350 cells/ cu mm.<sup>5</sup>

PLHIV women are more likely to experience vasomotor symptoms during their transition period. In the present study more than 50% women experience vasomotor symptoms like hot flushes and night sweats. Ferreira et al found that 65% PLHIV experience more vasomotor symptoms compared to HIV negative women. Lui-Filho et al found no difference between menopausal symptoms in sero-positive and sero-negative women.<sup>5</sup>

## CONCLUSION

Menopause is a pivotal life event for women and each woman has her own unique experience of process. HIV infection

is associated with premature menopause and more menopausal symptoms. Increasing age and menopause can result in false perception of cessation of sexual activity and can influence the safe sexual practices. Therefore, as patients with HIV live longer in the era of highly active anti retro viral treatment, the management of HIV infection poses to be a challenge.

## ACKNOWLEDGEMENTS

This work was funded and supported by WOS-B division of KIRAN scheme of Department of Science and Technology, Government of India.

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How to cite this article: Chauhan A, Chauhan S. Menopause in people living with HIV. *Int J Health Sci Res.* 2020; 10(11):66-69.

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