



## Original Article

# Use of Contraception among Women Living with HIV in Chennai, South India

Saramma Mini Jacob\*, K Sivasangeetha, D Anitha, G Dhavamani

Department of Experimental Medicine, The Tamilnadu Dr MGR Medical University, Chennai, India

### ARTICLE INFO

### A B S T R A C T

Received: 07 Aug 2017

Accepted: 22 Aug 2017

**Objective:** Knowledge on contraceptive methods will empower the HIV positive women of its use. The objective of this study was to determine the methods of contraceptive practices in HIV positive women living in Chennai. **Methods:** This cross sectional study was conducted from October 2013 to October 2014. Consenting HIV positive women who visited the Department of Experimental Medicine for various investigations were enrolled into the study. A structured questionnaire that included demographics and contraceptive practices was administered. The data was collected and analyzed using SPSS 16 software. **Results:** A total of 122 HIV positive women took part in this study and 48% belonged to 31-40 years of age. Majority (62%) were Hindus. Thirty four percent studied up to high school (10<sup>th</sup> class) and 43.4% were home makers. Employed women had an average earning of Rs 4469.50/ month. All the women were on Antiretroviral Therapy (ART). Almost 79% used some method of contraception. About 39.3% had tubal ligation (sterilization) as permanent method of contraception. And 20.5% used Copper-T whereas 18.9% women informed that their husbands/partners used male condoms. Dual method of contraception was used only by one woman. None of the women took oral contraceptive pills and none of the husbands/partners had vasectomy. **Conclusion:** Awareness on contraceptive options should be offered to HIV positive women. Condoms need to be promoted aggressively and dual contraceptive methods need to be encouraged in these women. Training of health care providers in offering better contraceptive options to the HIV positive women is essential.

**Key words:** Contraception, HIV, women, Chennai

## 1. INTRODUCTION

According to World Health Organization (WHO), HIV/AIDS remains one of the world's most significant public health challenges particularly in low and middle income countries. In 2015, there were an estimated 17.8 million women living with HIV (aged 15 and older), constituting 51% of all adults living with HIV.<sup>1</sup> As per National AIDS Control Organization (NACO), India HIV Estimation 2015 report, National adult (15-49 years) HIV

### Corresponding author \*

Dr Saramma Mini Jacob

Department of Experimental Medicine, The Tamilnadu Dr MGR Medical University, Chennai, India

Email ID: saramini@yahoo.com

prevalence in India is estimated at 0.26% (0.22% – 0.32%) in 2015. In 2015, adult HIV prevalence was estimated at 0.30% among males and at 0.22% among females.<sup>2</sup> In spite of the steady decline of prevalence of HIV infection in India, over 40% of HIV infected are women. The HIV positive women are encouraged to register at ART centers where they are counseled and motivated to lead a healthy life. However in these settings use of condoms is promoted but may miss the opportunity to emphasize on effective family planning and dual contraception. Dual contraception was defined as the use of two family planning methods, a condom and any other contraceptive methods to prevent unwanted pregnancy, abortion, sexually transmitted infections (STIs) including HIV.<sup>3</sup>

There are numerous contraceptive modalities available to women, including barrier methods, hormonal contraception, long-acting reversible contraception (LARC) such as intrauterine devices (IUDs) or implants, and sterilization.<sup>4</sup> The family planning scenario in India is dominated by high use of sterilization.<sup>5</sup>

Contraceptive use in HIV positive women will prevent the transmission of infection to their partners, HIV superinfection with different HIV strains, limit unwanted pregnancies and postpone childbirth.<sup>6,7,8,9</sup> Counseling on contraceptive methods will empower the HIV positive women of its use. The aim of the study was to collect information regarding the family planning choices of the HIV positive women. Therefore the objective of this study was to determine the methods of contraceptive practices in HIV positive women living in Chennai.

## 2. METHODS

This was an observational and cross sectional study. The study participants were HIV positive women who were in the age group of 18-50 years. Consenting HIV positive women who attended the Department of Experimental Medicine for various investigations were enrolled into this study over a one year period from October 2013 to October 2014. These women were receiving antiretroviral therapy (ART) at various tertiary care hospitals in Chennai. HIV positive pregnant women, female sex workers and widows were excluded from the study.

This study was assessed and approved by the Institutional Ethics Committee. The purpose of the study was described in detail to the participants by trained medical personnel. The women were explained that the information collected from them on contraceptive use would be helpful to the health care personnel to deliver better care. A structured questionnaire that included demographics and contraceptive practices was administered by an interviewer in the local language. They were also informed that their participation in the study was purely voluntary. To maintain confidentiality, none of the personal identifiers were documented. The data was entered into Microsoft Excel spreadsheet and analyzed using SPSS 16 software.

## 3. RESULTS

A total of 122 HIV positive women took part in this study. Most (48%) of the women who participated in the study belonged to 31-40 years of age followed by 18-30 years of age (27%). Majority (62%) of the women were Hindus and 25% were Christians. Thirty four percent of the women were educated up to high school (10<sup>th</sup> class/grade) and 29.5% had primary school education alone (up to 5<sup>th</sup> class/grade). Twenty five women had no formal education. There were 53 (43.4%) home makers. Women who were employed had an average earning of Indian Rupees 4469.50 in a month. About 35% of the women had two or more children. Only 55% of women had regular menstrual cycle. Majority (87%) of them knew that their husband were HIV positive and 10% were discordant couples (HIV positive women and their husbands were HIV negative). Almost all women disclosed their HIV status to their husbands/partner.

Overall, 79% used some method of contraception. About 58 women who used contraceptives were employed. Almost 39.3% of women had tubal ligation (sterilization) which was the permanent method of contraception. This was followed by the use of Copper-T (Intrauterine device-IUD) by 20.5% of women whereas 18.9% women stated that their husbands/partners use male condoms. Dual method of contraception was used only by one woman (natural method and male condoms). None of the women took oral contraceptive pills and none of the husbands/partners had vasectomy.

## 4. DISCUSSION

The most common route of transmission of HIV in India is heterosexual. Most of the Indian women have their husbands only as their sexual partner and most of them would have acquired HIV infection from their husbands. As ART is offered free of cost in the National program, many of these women avail the facility and the mortality and morbidity is much reduced in people living with HIV (PLHIV) in India.

In our study the overall contraceptive use was high. Around 40% of women in this study underwent tubal ligation. In a community study from Chennai, 58% of the rural married women were sterilized.<sup>10</sup> As per the National Family Health Survey 4: 2015-2016, 79% of women and 89% of men in Tamilnadu were literate. Almost 49% of women had undergone female sterilization (tubal ligation) and men did not undergo vasectomy. And only 0.8% of men use condoms.<sup>11</sup> Indian women whether HIV positive or negative opt for tubal ligation as it is economical and effective. Moreover many of the women in the rural areas of India may lack in knowledge of the contraceptive choices. While in Brazil only 19.8% of HIV positive women and 16% of HIV negative women opt for sterilization.<sup>12</sup>

In our study 21% of women used copper T (IUD). Evidence has shows that the copper IUD is a good option for HIV-positive women in low- and middle income countries. It does not increase HIV viral shedding in the genitalia and IUD-

related complications are few. It has been shown that HIV disease progresses faster among hormonal contraceptive than copper IUD users.<sup>13</sup> This contraceptive can be promoted for better use along with condoms in the HIV service settings.

Only 19% of men used condoms in this study. This poses a concern and health risk to partners and themselves. This may be due to social cause and embarrassment to procure condoms or due to ignorance. However even in the United States, in the Women's Interagency HIV Study, condom use was found to be less frequent among HIV-positive women using tubal sterilization or hormonal contraception compared with those not on other forms of pregnancy prevention.<sup>4</sup> Therefore counselors at the ART center need to stress on safe sex to PLHIV on every visit.

Our study clearly shows that our PLHIV lack the knowledge on dual contraception that will help in restricting unwanted pregnancies and prevent STIs including superinfection with HIV. Very few studies have looked into practice of dual contraception use in India especially among PLHIV. A study of PLHIV from 3 states of India (Maharashtra, Assam and Mizoram) observed use of dual contraceptive method increased from 5.7% before being diagnosed with HIV to 19.4% after being diagnosed with HIV mainly among women who had undergone tubal ligation.<sup>14</sup> A study from Thailand reported that only one-fourth of PLHIV used dual contraceptive methods<sup>15</sup> where as another study of PLHIV in Kenya, Namibia, Tanzania observed 27% usage of dual method.<sup>16</sup> Thus there is poor understanding of the dual contraception. The health care providers in the ART centers need to be sensitized in order for them to offer counsel the PLHIV on dual contraceptive method thus strengthening family planning services. .

In this study none of the women took oral contraceptive pills (OCP). A study from Mumbai observed that 19% of HIV infected women considered OCP harmful.<sup>9</sup> A study from Karnataka, South India reported 5.1% used oral contraceptives and fear of side effects was the main reason cited by participants for not using oral contraceptives followed by not wanting to take many drugs orally.<sup>17</sup> Whereas the percentage of HIV positive women using oral contraceptives was 10% in Ethiopia,<sup>18</sup> 35% in Nigeria,<sup>8</sup> 11% in Zambia<sup>6</sup> and 3.6% in Thailand.<sup>15</sup>

Even though vasectomy is considered a safe and reliable method of family planning, none of the husbands/partners had vasectomy in this study. In a KAP study from rural population of Bangalore, only one man out of 156 married men had undergone vasectomy even though 82% of men had heard of vasectomy.<sup>19</sup> A study of 93 HIV positive men recruited from five states on India revealed only 3 (3.2%) had vasectomy.<sup>20</sup> Family planning services need to advocate vasectomy as it is a safe procedure.

## 5. CONCLUSION

Awareness on contraceptive options should be offered to HIV positive women. Dual contraceptive methods can be

promoted in these women even if they are on ART. Training of health care providers in offering better contraceptive options to these women is essential. Condoms need to be promoted aggressively in preventing STI transmission. Family planning needs to be strengthened in ART centers as access to ART is increasing. A longitudinal study to validate the current finding is required so as to inform the policy makers to establish better family planning and reproductive health services for HIV positive women.

## 6. ACKNOWLEDGMENTS

The authors thank all the participants who were enrolled into this study

## 7. REFERENCES

1. World Health Organization. HIV/AIDS Fact Sheet 2017. Available from <http://www.who.int/mediacentre/factsheets/fs360/en/> last accessed on 2017 August 4)
2. National AIDS Control Organization. HIV facts & figures. Available from <http://naco.gov.in/hiv-facts-figures> last accessed on 2017 August 4)
3. Irene M, Clara H, Mathilda Z, Augustine N, Abigail K. Knowledge levels and practice of dual contraception in prevention of unplanned pregnancy and sexually transmitted infections, including human immunodeficiency virus (HIV). *OSR Journal of Nursing and Health Science* 2016; 5(1): 41-47
4. Sharma M; Walmsley L. Contraceptive Options for HIV-positive Women: Making Evidence-Based, Patient-centred Decisions. *HIV Medicine* 2015; 16(6): 329-336
5. Ram F, Shekhar C, Chowdhury B. Use of traditional contraceptive methods in India & its socio-demographic determinants. *The Indian Journal of Medical Research* 2014; 140 (1):S17-S28.
6. Hancock NL, Chibwesa CJ, Bosomprah S, Newman J, Mubiana-Mbewe M, Sitali ES, Chi BH. Contraceptive use among HIV-infected women and men receiving antiretroviral therapy in Lusaka, Zambia: A cross-sectional survey. *BMC Public Health* 2016; 16(1), DOI: 10.1186/s12889-016-3070-5
7. Habte D, Namasasu J. Family planning use among women living with HIV: knowing HIV positive status helps - results from a national survey. *Reproductive Health* 2015;12: 41. doi:10.1186/s12978-015-0035
8. Shehu AU, Joshua IA, Umar Z. Knowledge of contraception and contraceptive choices among human immunodeficiency virus-positive women attending antiretroviral clinics in Zaria, Nigeria. *Sub-Saharan Afr J Med* 2016; 3:84-89
9. Beena Joshi, Gajanan Velhal, Sanjay Chauhan, Ragini Kulkarni, Shahina Begum & Linkage Study Team Linking HIV & family planning services to improve dual methods of contraception among women infected

Int J Pharma Res Health Sci. 2017; 5 (4): 1785-88

- with HIV in Mumbai, Maharashtra, India. *Indian J Med Res* 2016; 143: 464-473
10. Kasthuri A, Mohana Krishnan K, Suganya A. "Induced Abortion" & "Sterilization" as Individual Methods of Contraception among Rural Married Women of Reproductive Age and Non Usage of Spacing Methods of Contraception A Community Based Cross Sectional Study. *Nat.J.Res.Com.Med* 2013; 2(1): 5-9.
  11. [http://rchiips.org/NFHS/pdf/NFHS4/TN\\_FactSheet.pdf](http://rchiips.org/NFHS/pdf/NFHS4/TN_FactSheet.pdf)
  12. Barbosa RM, Cabral CD, do Lago TD, Pinho AA. Differences in the Access to Sterilization between Women Living and Not Living with HIV: Results from the GENIH Study, Brazil. *PLoS ONE* 2016; 11(11): e0164887.
  13. Kakaire O, Byamugisha JK, Tumwesigye NM, Gemzell-Danielsson K. Intrauterine Contraception Among Women Living With Human Immunodeficiency Virus A Randomized Controlled Trial. *Obstet Gynecol.* 2015 Nov; 126 (5):928-934.
  14. Joshi B, Chauhan S, Das H, Luaia R, Sunil N. Changes in sexual behavior and contraceptive use after HIV acquisition and factors associated with risky sexual practices among people living with HIV in selected Indian cities. *Indian J Public Health* 2016; 60:251-259
  15. Munsakul W, Lolekha R, Kowadisiburana B, Roongpisuthipong A, Jirajariyavej S, Asavapiryanont S, Hancharoenkit U, Baipluthong B, Pattanasin S, Marti M. Dual contraceptive method use and pregnancy intention among people living with HIV receiving HIV care at six hospitals in Thailand *Reproductive Health* 2016; 13:8 DOI 10.1186/s12978-016-0123-2
  16. Antelman G, Medley A, Mbatia R, Pals S, Arthur G, Haberlen S, Ackers M, Elul B, Parent J, Rwebemba A, Wanjiku L, Muraguri N, Gweshe J, Mudhune S, Bachanas, P Pregnancy desire and dual method contraceptive use among people living with HIV attending clinical care in Kenya, Namibia and Tanzania. *J Fam Plann Reprod Health Care* 2015; 41(1):e1.
  17. Taranum A, Angadi N. Family Planning Practices and Associated Factors among HIV Positive Women Attending HIV Clinic of a Tertiary Care Hospital, Davangere. *National Journal of Community Medicine* 2016; 7(11): 864-867
  18. Asfaw HM, Gashe FE. Contraceptive use and method preference among HIV positive women in Addis Ababa, Ethiopia: a cross sectional survey. *BMC Public Health* 2014; 14: 566.
  19. Madhukumar S, Pavithra MB. A study about perceptions, attitude, and knowledge among men toward vasectomy in Bangalore rural population. *Int J Med Sci Public Health* 2015; 4:1066-1070.
  20. Chakrapani V, Kershaw T, Shunmugam M, Newman PA, Cornman DH, Dubrow R. Prevalence of and Barriers to Dual-Contraceptive Methods Use among Married Men and Women Living with HIV in India.

*Infectious Diseases in Obstetrics and Gynecology* 2011; 2011: 376432. doi:10.1155/2011/376432

**Conflict of Interest: None**

**Source of Funding: Nil**