



## PROSPECTIVE STUDY OF HIV IN PREGNANCY

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**ABSTRACT** Human Immunodeficiency Virus (HIV) causes Acquired Immunodeficiency Syndrome (AIDS). AIDS is a disorder of immune system in which body's normal defense mechanism against infection break down leaving it vulnerable to life threatening infections and malignancy. HIV has become a world pandemic. This study was conducted at Smt. Shardaben Municipal General Hospital and directed towards Prevalence of HIV positive pregnant women attending OPD at our institute, study of modes of transmission HIV, age wise and parity wise distribution of HIV among pregnant women.

**KEYWORDS :** HIV, Pregnant women, Mode of transmission

**INTRODUCTION:**

- HIV is a retrovirus belonging to subfamily of lenti virus.
- Human Immunodeficiency Virus (HIV) causes Acquired Immunodeficiency Syndrome (AIDS). AIDS is a disorder of immune system in which body's normal defense mechanism against infection break down leaving it vulnerable to life threatening infections and malignancy.
- HIV has become a world pandemic.
- Modes of transmission of HIV are:
  - Sexual route
  - Parenteral Use (IV drug abuse, Blood transfusion)
  - Mother to Child Transmission (vertical transmission)
  - Other routes (organ or tissue transplantation)
- In 2017, estimated prevalence of HIV in adult females of age group 15-49 years was 0.19%.<sup>1</sup>
- Estimated No. of pregnant women living with HIV in India is 10927 to 40605 in 2017.<sup>1</sup>
- Prevention of Parent To Child Transmission is very important.
- An obstetrician should take care of prospective mother and fetus, and make the delivery as safe as possible, to decrease chances of vertical transmission.

**AIMS AND OBJECTIVES:**

- To find out HIV positive cases in pregnant patients presenting in our OPD.
- To study effects of HIV in pregnancy.
- To study various modes of transmission of HIV

**MATERIALS AND METHODS:**

- This is a prospective study of HIV positive pregnant women attending OPD at Smt. Shardaben Municipal General Hospital.
- The study period was from June-2018 to May-2019.
- Voluntary HIV testing done at antenatal clinic after pre test counseling regarding HIV.
- Detailed general history and obstetric history was noted.
- Patients were asked about risk factors for HIV transmission like, HIV status of Husband, Occupation of husband, history of multiple sexual partners, history of blood transfusion, history of IV drug abuse.

**OBSERVATION AND DISCUSSION:**

**Table -1 Prevalence Of HIV Infection In Women Attending Antenatal Clinic**

Total No. of Antenatal Patient	Total No. of Antenatal Patient screened for HIV	No. of Seropositive women	Prevalence
11879	11720	12	0.11%

- Out of 11879 patients attending Antenatal clinic, 11720 patients were screened for HIV, Total 12 Patients were diagnosed HIV positive. Prevalence was 0.11%.

- Study conducted by Khokar et al in Gujarat in 2015 observed prevalence rate of 0.39%.<sup>2</sup>

**Table-2 Age Wise Distribution Of HIV Infection In Pregnancy**

Age( in years)	No. of Patients	Percentage	Ugen KE et al
<20	1	8.3%	-
20-24	3	25%	46.94%
25-29	3	25%	32.20%
30-34	4	33.3%	18.37%
35-39	1	8.3%	2.04%
>40	0	-	1.3%

- In our study, 1 patient was of age <20 years, 3 patients were having age group 20-24 years, 3 patients were from 25-29 years age group, 4 patients were from 30-34 years age group and 1 patient was from 35-39 years age group.
- Majority of patients 83.3% were from 20-34 years of age. During this age group women are sexually active and become pregnant.

**Table-3 Parity Wise Distribution Of HIV In Pregnancy**

Parity	No. of patients	Percentage	Chaudhari et al
0	3	25%	28.57%
1	6	50%	45.7%
2	2	16.6%	14.28%
≥3	1	8.3%	11.28%

- In our study, 3 patients (25%) were nulliparous and 6 patients (50%) were primipara.
- This may be due to HIV infected women avoiding further pregnancy or decreased life span or decreased fertility due to HIV infection.

**Table-4 Possible Mode Of Transmission Of HIV To Women**

Mode of transmission	No. of patients	Percentage	Anupama et al
Sexual Route	8	66.6%	54.5%
Blood Transfusion	1	8.3%	3%
Sexual Route + Blood Transfusion	1	8.3%	4%
IV drug abuse	0	0	6%
Others	2	16.6%	27%

- In present study 8 patients (66.6%) had history suggestive of acquiring HIV infection through sexual route. In 1 patient, history was suggestive of HIV infection acquired by blood transfusion. 1 patient had history suggestive of transmission through either sexual route or blood transfusion. 2 patients had denied any risk factor.
- The most common route of acquiring HIV infection among pregnant women is by sexual route.

**Table-5 Prevalence Of HIV According To Occupational Status Of Husband**

	Labourer	Driver	Diamond Worker	Job	Others
Husband	5	3	1	1	2

- In this study, HIV is more Prevalent in Labourer and driver, which suggests HIV is more prevalent in unskilled professions.

**CONCLUSION:**

At the end of this study, conclusions are as follow:

- Prevalence of seropositivity in our hospital is 0.11%.
- Majority of patients were from 20-34 years of age, reason being women are sexually more active and become pregnant during this age group.
- Most common route of HIV transmission is by sexual route.
- HIV is more prevalent in unskilled professions. Hence, Education is important to reduce prevalence of such diseases.
- India's socio-economic status, traditional social ills, cultural myths on sexuality and a huge population of marginalized people make it extremely vulnerable to HIV/AIDS.
- Prevalence of HIV among pregnant women in India is of great concern, especially to prevent HIV in children.
- Seroprevalence of HIV infection among pregnant women is low, but Voluntary HIV counseling and testing is important part of identifying and treating HIV positive women to decrease MTCT.
- Multiple strategies including proper counseling of patient and increasing awareness, early admission of patients and elective cesarean section, nevirapine protocol, promoting hospital deliveries, avoidance of breast feeding reduces rate to MTCT of HIV infection.

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