

CHANGING TRENDS OF HIV INFECTION IN PPTCT (PREVENTION OF PARENT TO CHILD TRANSMISSION) GOVERNMENT GENERAL HOSPITAL, GUNTUR, ANDHRA PRADESH, SOUTH INDIA, 2002-2013B. Venkateswara Rao¹**HOW TO CITE THIS ARTICLE:**

B. Venkateswara Rao "Changing Trends of HIV infection in PPTCT (Prevention of Parent to Child Transmission) Government General Hospital, Guntur, Andhra Pradesh, South India, 2002-2013". Journal of Evolution of Medical and Dental Sciences 2014; Vol. 3, Issue 42, September 08; Page: 10476-10481, DOI: 10.14260/jemds/2014/3366

ABSTRACT: INTRODUCTION: The objective of this study is to know the various changing trends in the HIV infection in the antenatal women attending the PPTCT department, Government General Hospital, Guntur, Andhra Pradesh, during 2002 to 2013. **METHODS:** This is a retrospective study done in Government General Hospital, Guntur, Andhra Pradesh, during 2002 to 2013. The data was collected from the records maintained in the PPTCT department and the changing trends of HIV infection in antenatal women were studied. **RESULTS:** The prevalence rate of HIV infection in antenatal women decreased from 4.4% to 0.84%. Monthly average number of HIV positive deliveries in our institution varies from 150 to 250 cases. Percentage of caesarian section done was about 20% of cases. More number of cases were from urban than rural areas. Initially the cases were more in low socio-economic status. Young primigravida women around 20 years were more infected. High risk behavior of the husband was mainly responsible for the transmission of the disease. HIV infection was common in the innocent housewife. **CONCLUSION:** The study concludes that the HIV infection among pregnant women in our institution shows various changing trends and a decreasing incidence due to the effective implementation of the PPTCT programme under the National AIDS control programme started in the year 2002.

KEYWORDS: Prevention of parent to child transmission (pptct), hiv infection: changing trends.

INTRODUCTION: Government General Hospital, Guntur, Andhra Pradesh is a tertiary, referral teaching hospital covering a wide range of rural and urban areas of three districts Guntur, Prakasam and Krishna. The hospital is a 1500 bedded which has all departments including super specialties.

According to the latest update on the worldwide AIDS epidemic from the Joint United Nations Programme on HIV/AIDS, the global population of women living with HIV/AIDS grew by 1.2 million between 2004 and 2006 to a total of 17.7 million, or 48% of the total population of adults living with HIV.⁽¹⁾ Highest burden of HIV among pregnant women is found in the states of Andhra Pradesh followed by Bihar, Maharashtra, Uttar Pradesh etc. In India, women account for around one million out of 2.5 million estimated number of people living with HIV/AIDS.

The prevalence rate for adult females is 0.29 percent, while for males it is 0.43 percent. This means that for every 100 people living with HIV and AIDS, 61 are men and 39 women.⁽²⁾ According to NACO, with 27 million pregnancies a year and an overall estimated 0.3% prevalence rate of HIV infection among pregnant women, it is estimated that about 100,000 HIV infected women deliver every year in India.⁽³⁾

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In Andhra Pradesh, Guntur district has a high prevalence rate of HIV infections in India. The estimated HIV infections among pregnant women in India reduced from about 65,000 cases in the year 2002 to about 38,000 in the year 2011.⁽⁴⁾

To reduce the burden of HIV infections in the antenatal women and among children the National AIDS Control Programme (NACP) launched Prevention of Parent to child (HIV) Transmission (PPTCT) of HIV services in Government General Hospital, Guntur district in the year 2002.⁽⁵⁾

This has provided access to HIV testing services to all pregnant women enrolled into Antenatal outpatient department. The services are also extended to provision of Anti retro viral (ARV) prophylaxis with a single dose of Nevirapine tablet at the time of delivery to mother and syrup Nevirapine to the baby.⁽⁶⁾

AIM: To study the changing trends in the HIV infection among pregnant women and analyzed during 11 years i.e. from 2002 to 2013.

METHODS: The present retrospective study was conducted at Government General Hospital, Guntur, Guntur district, Andhra Pradesh, South India. The data were collected from the records of the PPTCT department in the Antenatal Outpatient department. The data were tabulated and analyzed in various aspects like prevalence rates, urban and rural distribution, socio economic status, age wise and gravida wise distribution, risk factors responsible and occupation.

RESULTS: The data collected from the department of PPTCT, Government General Hospital, Guntur, was tabulated and the results were shown as follows.

Year	Total counseled	Total tested	Total positive	Percent of cases	Posttest counseling	Total deliveries	LSCS	% cases
2002-03	8141	6909	309	4.4	5809	172	40	23
2003-04	10863	10306	381	3.6	7458	235	31	13
2004-05	11311	11122	357	3.2	8999	198	31	15
2005-06	12055	11992	372	3.1	10042	242	44	15
2006-07	12699	12684	333	2.6	11419	240	50	21
2007-08	11198	11197	254	2.2	10247	238	54	23
2008-09	10416	10272	219	2.1	9610	219	42	19
2009-10	9191	9157	153	1.6	8569	179	52	29
2010-11	9394	9393	130	1.3	8975	161	40	25
2011-12	9239	9239	91	0.98	8885	133	37	28
2012-13	8863	8843	75	0.84	8416	149	40	27

Table 1: PPTCT Year-wise performance 2002-2013

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Year	Urban	Rural	Low socio-economic status	Middle socio-economic status	High socio-economic status
2002-03	207	102	193	89	27
2003-04	220	161	225	119	37
2004-05	217	140	172	127	58
2005-06	217	155	137	182	53
2006-07	229	104	207	90	36
2007-08	147	107	102	124	28
2008-09	118	101	90	120	09
2009-10	101	52	61	79	13
2010-11	89	41	53	51	26
2011-12	59	32	33	43	15
2012-13	51	24	36	30	09

Table 2: Year-wise Urban and Rural and Socio-economic status distribution

Year	<19 yrs	20-24 yrs	25-30 yrs	>31 yrs
2002-03	53	128	116	12
2003-04	79	153	105	44
2004-05	79	135	95	47
2005-06	54	213	76	29
2006-07	55	197	54	27
2007-08	26	127	93	08
2008-09	27	108	70	14
2009-10	11	95	39	08
2010-11	21	78	26	05
2011-12	25	52	11	03
2012-13	20	43	08	04

Table 3: Age-wise distribution of cases

Year	Primi gravida	Second gravida	Third gravida	Unmarried
2002-03	122	74	113	-
2003-04	185	146	50	-
2004-05	175	98	81	03
2005-06	113	186	71	02
2006-07	137	154	40	02
2007-08	134	101	19	-
2008-09	111	85	23	-
2009-10	79	65	09	-
2010-11	86	41	03	-
2011-12	51	38	02	-
2012-13	46	26	03	-

Table 4: Gravida-wise distribution of cases

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Year	Multiple partners	Husband	Blood transfusion
2002-03	91	217	01
2003-04	122	256	03
2004-05	26	328	03
2005-06	42	324	06
2006-07	27	303	03
2007-08	07	247	-
2008-09	04	215	-
2009-10	11	133	09
2010-11	27	101	02
2011-12	15	73	03
2012-13	21	54	-

Table 5: Risk factor transmission of cases

Year	Housewife	Coolly	Other
2002-03	137	134	38
2003-04	171	179	31
2004-05	152	133	72
2005-06	219	130	23
2006-07	183	129	21
2007-08	135	112	07
2008-09	97	114	08
2009-10	111	36	06
2010-11	102	21	07
2011-12	70	16	05
2012-13	52	17	06

Table 6: Occupation of the wife and distribution of cases

Year	Unskilled	Skilled	Driver profession
2002-03	143	82	84
2003-04	187	102	92
2004-05	169	130	58
2005-06	167	105	100
2006-07	170	99	64
2007-08	108	91	55
2008-09	145	42	32
2009-10	89	36	28
2010-11	93	22	15
2011-12	61	19	11
2012-13	45	22	08

Table 7: Occupation of the Husband and distribution of cases

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DISCUSSION: The prevalence rate of HIV infection in antenatal women attending the hospital decreased from 4.4% in 2002 to 0.84% in 2013. Average total number of antenatal patients tested for HIV per month was 10,000. Total HIV positive deliveries in a month were about 150 to 200 cases.

Percentage of Caesarian section cases was about 21% which is same as in the non HIV cases. Most of the cases attending were from urban areas than the rural areas i.e. 50% more. Initially the cases were more in low socio economic status, later they were almost equal in both low and middle socio economic status.

The data shows that the Antenatal HIV infected women attending the hospital were young aged around 20 years. Young primi gravida were more infected than the second and third gravidae. In our study the risk factor for transmission was mainly from the high risk behavior of the husband. Most of the cases attending the PPTCT with HIV positive the occupation of the wife was mostly innocent housewife and the husband were mostly unskilled persons.

CONCLUSION: The study shows various changing trends of the HIV infection in antenatal women in Guntur district. Because of the effective implementation of the PPTCT programme by NACO in the hospital there is a consistent decline over last 11 years. Guntur which has high prevalence rate has come down drastically from 4.4% to 0.84% during the 11 years.

The HIV positive deliveries were about 200 cases per month and the caesarian section rate of about 20%, in the HIV positive antenatal cases were almost the same as in the general antenatal cases. The cases were more from the urban areas and there was a changing trend of cases from the low socio-economic to middle socio-economic status.

Young primigravida about the age of 20 years were mostly affected. In our study the high risk behavior of the husband was more responsible for the HIV infection in the antenatal women. Our data shows that the innocent housewife was mostly infected and the husband's occupation was mostly unskilled workers.

The changing trends over the 11 years in the HIV infection in the Antenatal women were due to the effective implementation of the programme and due to additional treatment centers at different places in the district within the reach of the people.

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Date of Submission: 21/08/2014.

Date of Peer Review: 22/08/2014.

Date of Acceptance: 01/09/2014.

Date of Publishing: 06/09/2014.