Original Article

PROFILE OF HIV POSITIVE ANTENATAL WOMEN IN TERTIARY CARE HOSPITAL IN SURAT CITY

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ABSTRACT

Background: HIV infection is a global epidemic that now affect 35 million people worldwide. Its rate is increasing in female day to day as well as 95% of pediatrics HIV infection occur through parent to child transmission .despite prenatal ART treatment still morbidity and mortality is rate is still high so the present study was conducted to identify HIV in ANC women and her husband for providing apparent care of ANC women and decrease risk of transmission to fetus as well as uninfected partners.

Methods: This cross sectional study was carried out in tertiary care hospital of surat city include 1000 ANC women and her husband coming at ANC clinic for routine check up .all the women and husband counsel and tested for HIV before taking prior consent, also taken detail history to asses sociodemgraphic profile, obstetric profile and associated co morbidity in ANC women.

Results: Among study population 0f 1000 women 19 women were HIV positive. seroprevalence is more in age less than 25 years illiterate(78.9%)unskilled(100%) coming from urban area(78.9%). 83.5% regularly registered multigravida(78.9%)and vaginally delivered (68.9%) ANC women were HIV positive. None of the seropositive women were hbsag positive, out of 19 seropositive 7(36.84%) anemic and 12 (63.6%) non anemic.

Conclusion: Seroprevalence is more in younger multiparous, illiterate, unskilled registered ANC women. So proper counseling and timely management of delivery is needed by health personnel.

Key words: HIV, ANC, Prevalence.

INTRODUCTION

There are approximately 35 million people currently living with HIV and tens of million died of aids related causes since beginning of epidemic.[1]india carries the largest burden of 2.5 million HIV people among Asia and is the third country of the world in terms of HIV infected people.[2] among these 40% cases are women which reflects increasing number of women with HIV in world wide.[3] according to Gujarat sentinel surveillance 2007, covering 9517 ANC women the median positivity rate of 0.46% HIV infection among ANCs[4].several cross sectional studies identifies low education , poverty ,cultural , social stigma, migration from rural to urban, her husbands behavior as risk factors HIV transmission. [5,6,7,8] Despite reduction in overall HIV prevalence, women percentage is increase due to lack of knowledge and proper counseling in HIV infected mothers rate of perinatal transmission of HIV increases. majority of fetus to mother transmission occur at the time of delivery .The obstetric factors responsible for transmission like mode of delivery ,parity, rupture of membrane >hrs, placental abruption, episiotomy ,presence of vaginal abrasion during labour , preterm delivery associ-

ated With prolonged labour.[8,9.10] Despite effective decline of the morbidity and mortality as a result of ART, due to similar rout of transmission HBV &HIV infection coexists .[12] and varying from region to region risk factor for HIV acquision differs.[13] Anemia is another most common abnormality associated With HIV may be due to three basic mechanisms decrease RBC production, increase destruction and ineffective RBC production.[14] so prenatal identification of HIV is crucial to the delivery of optimal care to mother and fetus, so our objective of this study to analyze prevalence of HIV in ANC, identify obstetric factors responsible for HIV transmission and co morbidities associated with HIV.

METHODS

This cross sectional study of 1000patients carried out in department of Obs. and Gynec at tertiary care hospital of south Gujarat of surat city, patient of study are selected when they came for antenatal check up in hospital. All the women in this study was taken written informed consent before collecting information and ethical clearance from the institute,

Registerd ANC , those coming in emergency and her husband were counseled and tested for HIV, also inquired about detailed history tacking include eg , maternal demographics(age, marital status, gravidity, parity, habits, blood transfusions),obstetric history, medical history. They were counseled regarding warning signs of pregnancy and labour, those opting for elective CS after assessment were scheduled for elective Cs at 38wks and those who deciding for vaginal delivery were advised for early admission in labour room. Labour was managed and monitored as usual with avoidance of invasive fetal monitoring . Episiotomy was restricted to necessary cases only . Immediate cord clamping done. All the subjects also tested for associated co morbidities like Anemia and Hbsag.

RESULTS

This cross sectional study includes 1000 ANC women and her husband. Sero-prevalence is more in age group less than 25 yers.

Table-1 shows seroprevalence is 10(52%) more in age less than25years than 9(48.1%) in age more than 25years. more in urban15(78.9&) than rural area 4(21.04%), as shown in above table in present study only 44(4.4%) women were doing skill work (eg. technicians such as electricians , plumbers , carpenters , weavers ,potters ,painters ,tailors and shoemakers etc.) while 956(95.6%) women were doing unskilled work(eg. work at construction work , quarries, stone crusher, road work) .all seropositive women and their spouse were unskillworker(95.5%) and (86.03%) spouses respectively . 78.9% sero+ve women were illiterate while 73.9% sero-ve were illiterate ,63.16% of spouses of sero+ve were illiterate while 15.94% of spouses of seronagative were illiterate. the difference in the educational status of seropositive and seronagative subjects was statistically significant.

Table 1: Socio-demographic profile

	Sero-positive (n=19)	Sero-negative (n=981)	Total	p value
Age				
<25	10(52.1%)	651(65.1%)	661	0.264
>25	9(48.1%)	350(35%)	359	
Area				
Urban	15(78.9%)	872(88.89%)	887	0.17
Rural	4(21.04%)	109(11.11%)	113	
Occupation				
Self –skilled	0	44(4.4%)	44	0.34
Self- Un skilled	19(100%)	937(95.5%)	956	
Husband-skilled	0	137(13.9%)	137	0.07
Husband-unskilled	19(100%)	844(86.03%)	863	
Education				
Self –illiterate	15(78.9%)	717(73.9%)	732	0.04
Self-Litterate	4(21. %)	262(26.76%)	266	
Husband-illiterate	12(63.16%)	152(63.16%)	164	0.01
Husband-Litterate	7(36.84%)	819(83.49%)	826	

Table-2: Obstetric profile of ANC women

	N= 1000	Sero+ve (n=19)	Sero-ve (n=981)	P value
Registered				
Regular	796	16(83.59)	780(79.51)	0.87
Emergency	204	3(15.79)	201(20.49)	
Gravidity				
Primi	369	4(21.05)	365(37.21)	0.14
Multi	631	15(78.95)	616(62.69)	
Mode of delivery				
Vaginal	777	11(68.75)	766(78.08)	0.153
Lscs	220	5(31.25)	215(21.92)	

Figure in parenthesis indicate percentage

Table-3: Distribution of co-morbidities in ANC women

	N=1000	Sero+ve	Sero-ve	P value
Anemic	107	7(36.84)	100(10.19)	
Non anemic	893	12(63.15)	881(89.80)	0.008
HBSAg +Ve	5	0(0.0)	5(0.5)	
HBSAg -Ve	995	19(100)	976(99.49)	0.337

Figure in parenthesis indicate percentage

Table-2 shows among 796registered ANC sero positives are 16(83.59%)regular and 3(15.81%) emergency ANC respectively, four primi(21.o5%) primi and 15(78.95%) multigravida were sero positive .,In vaginal delivery 11(68.75%) and LSCS 5(31.25%) were sero+ve ,CS rate in seronegative group was 21.82%.

Table 3- shows amog seronagative 100(10.19%) were anemic while 7(36.84%) of seropositive subjects were anemic, none of sero-positive subjects found HbsAg positive while 5(0.5%) out of 981 seronegative subjects were HbsAg+ve.

DISCUSSION

Socio-demographic profile of ANC women shows seroprevalence is more 10(52%) in age less than 25 years than 9(48%) greater than 25 years, which matches23+ 6.2years and 23.7+ 3.5 yrs in chaudhary et al and maitra et al study resoectively.[15,16] our most of the subjects are very young may be due to low sex education, more sexually active and not using condoms. Most of ANC women from urban 15(78.9%) than rural (21.04%) area, the urban predominance in our study due to the urban drainage of our hospital. chaudhary et al studied 35 seropositive women and found 18(15.42%) were from urban area and 17(48.57%) were from rural area.

Majority of seropositive women and her husband in study were unskilled worker (95.5%) and (86.03%) respectively, their skilled status were directly proportional to their educational status, reflecting their knowledge about HIV to a certain extent,78.9% seropositive women and 73.9% seronegative women were illiterate, the difference in educational status of seropositive and seronegative subjects was statically significant(p value 0.04).mitra et al studied 8309 women and found 4633(56%) literacy rate in women,56.8% in husbands. [16]over all literacy rate, information leaflets were unlikely to be beneficial, alternative methods such as use of audiovisual aids and information education by a nurse counselor or social worker is beneficial.

Among study subject women out of 19 seropositive 16(83.59%) ANC were regularly registred in hospital. the registration rate of seropositive women gave us opportunity for comfortable client counseling without fear on subjectside. seroprevalence is more in multigravida 15 (78.95%), mitra et al found mean gravidity of seropositive women 2.097 + 2.8, which is comparable to our study .[16] in our study 11 (68.75%) delivered vaginally and 5 (31.25%) by LSCS, chaudhary et al studied 14 seropositive women and found 6 (42.8%) delivered vaginally and 8(57.14%) were by LSCS.[15] considering the socioeconomic status of most of our patient, LSCS was routinely offered for all sero+ve subjects in our study. Regarding co morbidity in study subjects 7 (36.84%) seropositive women were anemic, reflecting nutritional status of seropositive subjects, protection against HIV infection and immunity is directly linked to the nutritional status of subjects, p value 0.008 is statically significant. None of the seropositive subject found HbsAg positive while 5 out of 981 seronegative subjects were HbsAg positive possibly because some seropositive subjects could have been in window period of hepatitis B infection.

CONCLUSION

From this study we conclude that seroprevalence is more common in young registered multiparous illiterate unskilled ANC Women. This study also highlights HIV is transmitted trough vaginal delivery more than LSCS, which suggest need of early diagnosis and timely intervention and management of pregnancy to prevent fetomaternal transmission of HIV.

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