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Observation on effect of combination drug regimens and (Snoup) single dose nevirapine prophylaxis regiment on prevention of perinatal transmission of HIV transmission (In the period from May 2012 to December 2016)

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Abstract
ART (Antiretroviral Therapy during pregnancy) is focused on the reduction of perinatal transmission and the treatment of maternal human immunodeficiency virus (HIV) disease. ART can reduce perinatal transmission by several mechanisms, including lowering maternal antepartum viral load and preexposure and post exposure prophylaxis of the infant therefore, for prevention of perinatal transmission of HIV, Combined antepartum, intrapartum given infant antiretroviral prophylaxis is given.

Keywords: ART (Antiretroviral Therapy during pregnancy), human immunodeficiency virus (HIV)

Introduction
Aim of this study is to comparing the effect of SNDVP (Single dose nevirapine prophylaxis) to combination drug regimens on reduction of perinatal transmission of HIV/AIDS in antenatal women using NACO Protocols, with a series of interventions.

Methods
Prospective & retrospective study, data collected from parent to child transmission of HIV/AIDS records and case sheets.
Women registered pretest counseling in atenatal women were tested for HIV Post test counseling was given, From May 2012 to Dec 2014 single dose Nevirapine was administed to mother at the on set of Labor And to neonate Exclusive breastfeeding advised for first 6 months of life Infants were tested for HIV at 18 months of age by ELISA Same regime for followap was followed after Dec 2014 to Dec 2016 giving combination drug therapy to antenatal patient and nevirapine to HIV patient who were treatment naïve patients first came in labour without any treatment in antenatal period The following recommendations were followed during treatment of HIV(Positive) Pregnant Women.
Women who were receiving ART for HIV infection should continue the same regimen during pregnancy in general if it is well tolerated and they have effective HIV vinologic Suppresion.
Efavrenz should be avoided in women of childbearing age. Consideration should be given to continue efaviren if pregnancy occurs on efavirenz based regime if it is well tolerated with virologic supperession as ris of potential neural tube defect has already occur by the time pregnancy is recognized. In addition, there may be rise of viral escape with regimen change.

Preferred Treatment Regimens
These have optimal efficacy and durability with acceptable taxicity and ease of use No evidence of teatogenic effects onn the fetus or established association with treatogenic or clinically significant adverse out comes for the mother fetus or newborn are present.

Non-two non-nucleoside reverse transariptase intibiter backbone

Reginmens include the following
- Zidouvadine with lamivudine (300 mg ZDV/150MG 3TC) PO BID Combination with most experience in pregnancy can cause hematological taxicity
- Tenofouir with emtricitabine (TDF/FTC) or lamivudine (3TC) Once Daily (Use With Caution In Renal Insufficiency)
- A bacavir with lamivudine (ABC/3TC) Once daily (only if HLA-B5701-negative)

Non-nudeoside reverse transcriptase inhibitors based regimen
After the first 8 weeks of pregnancy Efavirenz (EFU) alone is used. Efavirenz (EFU) alone is used. Although there are concern of potential neural tube defects in woman of child bearing age before pregnancy is detected increasing data in pregnancy are reassuring.

Protease Inhibitor-based regimens
Regimens include the following:-
- Lopinavir (LPV) 400 mg plus ritonavir (RTU) PO BID if no lopinavirassocioated resistance substitutions (Pharmacokinetic study demonstrated 40 % decrease in C12 h during second and third trimester but not considered significant 8J. insuffiecient for ant lopinavir associated resistance substitution, once daily LPV/RTV dosing is not recommended during pregnancy
- Atazanavir (ATV) is recommended to be combined with low dse ritonavir (RTU) boosting (ATU/RTU): ATU 300mg plus RTU 100mg PO daily as a single daily dose. Some experts increase ATU/RTU Dose To 400/100 mg daily during second and third trimester: manufacturer recommends dose increase in pregnancy if combined with tenofovir or H2 blocker in treatment experienced patients and with efavirenz in naïve patients Recommedations for treatment naïve patients HIV antiretroviral drug resistance

testing should be perfomed prior to initiating antretrairal prophylaxis or therapy and shoulb be performed if the woman is receiving ART with Virologic failure (Viral Load 500-1000 copies/ ML) if a woman with HIV infection apresents late in pregnancy ART should be initiated immediately, before availability of resistance testing.

If a women requires immediate initiation of therapy for her own health initiate treatment as soon as possible including in the first trimester delay until second trimester may be considered based on maternal CD4, GI tolerability and potential fetal ris of first trimester exposure.

A Backbone of Dual Nucleouside Analogue reverse Transcriptase Inhibtiors (NRTI) With Either a Non-Nucleoside Reverse Transcriptate Inhibator (NRTI) Or Low Dose Ritonavir-Boosted Protease Inhibitor (Pi) Is the Preferred Intial Regiment in Pregnancy.

Intrapatum caregh

Intraprtum AZT Zidovudine should be administered to pregnant HIV-Infected women if the HIV viral load is 1000 or more copie s/ml or unknown at time of delivery, irrespective of mode of delivery AZT 2mg/kg IV is a administered over 1Hour, then continuous infusion of 1mg/kg/h from onset of labor to delivery Oral AZT, if part of the combination regimen, should be stopped while IV AZT is administered.

IV AZT is not required if the patient is receiving combination therapy and the HIV viral load is consistently less than 1000 copies ml near time of delivery and adherence is reliable.

Result

Among the woman who tested seropostive of HIV & and delivered in our hospital: SNDVP was administered to 95% of mother child pairs (which included booked cases HIV (Positive) Cases coming before Dec 2014 all unbooked (treatment naïve) HIV Patient after Dec 2014 (Group-I) 25% of mother child pairs the booked HIV Patients who came to our hospital during antenatal period were given combination therapy. (Group-I) out of these too groups, 70% of woman had hospital delivery, 10% delivered by induction 10% by outlet foreps and 10% by LSCS.

Table 1: Institutional delivery rate/mother baby pairs received ART

Year	Test for HIV	Delivered	Rate of Institutional delivery	Percentage of mother-baby pairs receiving ART
2012	172	115	67	92
2013	260	161	61	94
2014	26.	189	73	96
2015	225	171	75	97
2016	260	183	72	97
Total	1,177	819	407 Mean 70	Mean 95 Total-480

Table 2: Number of babies tested at 18 months of age from December 2013 to-December 2016

Total No. of infants who came for follow-up		Number of infants tested Positive for HIV		Number of infants tested Negative for HIV		Percentage of perinatal transmission	
GR I 280	GR II 120	GR I 19	GR II 2	GR 1 261	GR II 118	GR I 8	GR II 1.66

Discussion

The Universal Screening for HIV AIDS needs to be follow-up by 100% institutional delivery, ART (preferably combination therapy staring from Antenatal period is found to be Antenatal period is fund to be more effective in prevention of parent to child transmission of HIV AIDS virus.

Ours being a resources poor country exclusive breast feeding if allowed for six months along with Nevirapine drops to the child. Regardless of infant's HIV Status.

Conclusion

Hundred percent HIV women detected and treated by combination therapy and treated can eliminate transmission of HIV AIDS virus from parent to child and fulfil the goal of PPTCT.

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References

1. Afolabi MO, Fatusi AO, Abioye-Kutei E, *at al*. HIV voluntary counseling and testing of pregnant health care centre in Ilesa, Nigeria. Int J Third World Med ISSN: 1539-4646
2. Abrams EJ, Myer L, Rosenfield A, EI-sadr WM. prevention of mother-to-child transmission services as a gateway to family-based human immunodeficiency virus care and treatment in resource-limited settings; rationale and international experiences. Am J Obstet Gynecol. 2007; 197(3):S101-6.
3. Chandisarewa W, stranix-chibanda L, Chirapa E *et al.* Routine offer of antenatal HIV testing ("opt-out" approach) to prevent mother-to-child transmission of HIV in urban Zimbabwe. Bull World Health Organ. 2007; 85(11):843-50.
4. Bordeaux working group. HIV care and PMTCT in resource-limited settings. Monthly intelligence report, 2007, 3.
5. Reducing mother-to-child transmission of HIV among women who breastfeed. Linkages, academy for educational development – Spotlingt, 2004, 1-6.