

Toxicities from Nevirapine (NVP)-based Antiretroviral Regimens in Pregnant Women with CD4 Count Between 250- 350 cells/mm³.

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Background:

Antiretroviral therapy (ART) is currently recommended for women with CD4 count <350 cells/mm³ who have clinical stage III and there is a trend to consider ART for those in clinical stage I or II. Higher risk of NVP toxicities in women with CD4 >250 cells/mm³ has been reported. However, risk in women who have CD4 count of 250-350 cells/mm³ especially in developing countries is unclear. We studied toxicities from NVP in Thai pregnant women with a wide range of CD4 count who received NVP-based ART for their own health and/or for PMTCT.

Methods:

A prospective cohort study of Thai pregnant women was performed at the Thai Red Cross AIDS Research Centre. AZT/3TC/NVP was provided from 14 weeks of gestation if CD4 count <200 cells/mm³ and from 28 weeks if CD4 count >200 cells/mm³. AST/ALT was checked at baseline, week 2, 4, 6, 8 and then every 4 weeks until delivery. NVP was stopped if toxicities ≥grade II occurred. Data from the start of ART until delivery were retrieved from all pregnant women enrolled during April 2004 - August 2006.

Results:

Among 494 pregnant women enrolled, 98 (19.8%) had CD4 count between 251-349 cells/mm³ (median 424). Mean time on ART was longer in women with CD4 count <250 cells/mm³ (12 versus 8 weeks, P<0.001). Grade I-IV hepatotoxicity was found in 14.8% and grade I-IV rash in 12.3%.

Hepatitis

CD4 count (cells/mm ³)	N	Hepatitis, all N (% per 100PY)	Mean onset (wk)	*P-value, OR (95%CI)	grI-II	*P-value, OR (95%CI)	asymptomatic	*P-value, OR (95%CI)
<250	140	15 (10.7, 0.8)	4.6	Ref	15	Ref	15	Ref
251-349	98	12 (12.2, 1.6)	4.0	0.506, 1.3 (0.6, 3.1)	11	0.662, 1.2 (0.5, 2.9)	10	0.875, 1.1 (0.4, 2.6)
>350	256	46 (17.9, 2.2)	3.5**	0.009**, 2.4 (1.2, 4.5)	38	0.043**, 1.98 (1.0, 3.8)	41	0.023**, 2.1 (1.1, 4.1)

Rash

CD4 count (cells/mm ³)	N	Hepatitis, all N (% per 100PY)	Mean onset (wk)	*P-value, OR (95%CI)	grI-II	*P-value, OR (95%CI)	grIII-IV	*P-value, OR (95%CI)
<250	140	16 (11.4%, 0.9)	2.5	Ref	13	Ref	0	Ref
251-349	98	6 (6.1%, 0.8)	2.3	0.305, 0.6 (0.2, 1.6)	5	0.391, 0.6 (0.2, 1.8)	0	0.579, 0.5 (0.1, 5.1)
>350	256	39 (15.2%, 1.8)	2.6	0.157, 1.5 (0.8, 2.8)	22	0.836, 1.1 (0.5, 2.2)	4	0.049**, 3.5 (1.0, 12.0)

*per100PY **P<0.05

Conclusions:

Grade I-II hepatotoxicity, asymptomatic hepatotoxicity and grade III-IV rash were found more frequent in pregnant women with CD4 count >350 cells/mm³ as expected but **we did not find any higher rate of toxicities among women with CD4 count between 250-350 cells/mm³**. Our findings, although with limited number of women, support the safety of NVP use among women in this CD4 count range.