

The Effect of Highly Active Anti-Retroviral
Therapy (HAART) on Cervical Intraepithelial
Neoplasia in Women with HIV
A Systematic Review

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WHO Scholarship

BACKGROUND

- CA CERVIX STILL A MAJOR CAUSE OF MORTALITY
- 300 000 WOMEN DIE ANNUALLY, 80% IN DEVELOPING COUNTRIES
- 500 000 NEW CASES EVERY YEAR
- CA CERVIX PREVENTABLE
- HAS WELL DEFINED NATURAL HISTORY AND PREMALIGNANT CONDITION, CIN

BACKGROUND CTND

- HIV SHOWN TO INCREASE RISK OF ONCOGENIC HPV AND HIGH GRADE CIN
- ASSOCIATION RELATED TO SEVERITY OF IMMUNE SUPPRESSION
- HAART RESTORES IMMUNITY AND REDUCES VIRAL LOADS
- THIS IS PROTECTIVE AGAINST OIs AND OTHER MALIGNANCIES
- COULD PROTECT AGAINST HPV-RELATED CIN

OBJECTIVES

- TO REVIEW STUDIES ON THE SHORT TERM EFFECT OF ANTIRETROVIRAL THERAPY ON THE NATURAL HISTORY OF CIN

OUTCOME MEASURES

- INCIDENCE AND PREVALENCE RATES OF CIN WITH HAART USE
- RECURRENCE, REGRESSION AND PROGRESSION RATES WITH HAART USE

INCLUSION CRITERIA

- ALL STUDIES WITH THE ABOVE OUTCOME MEASURES

EXCLUSION CRITERIA

- INADEQUATE DATA

STUDY POPULATION

- HIV POSITIVE WOMEN OF ANY AGE
- INTERVENTION GROUP ON HAART
- COMPARATIVE GROUPS
 - HIV POSITIVE NOT ON HAART
 - HIV POSITIVE ON MONOTHERAPY
 - HIV POSITIVE ON ANY OTHER COMBINATIONS
 - HIV NEGATIVE WOMEN

MATERIALS AND METHODS CTD

- ELECTRONIC AND MANUAL SEARCH
- CRITICAL APPRAISAL OF STUDIES ON
 - DESIGN
 - SAMPLING
 - DEMOGRAPHIC CHARACTERISTICS
 - SETTING
 - TYPE OF DATA REPORTING

RESULTS

- 7 STUDIES ANALYSED
- TOTAL SAMPLE OF 1018
- FROM 3 DEVELOPED COUNTRIES
- 6 PROSPECTIVE, 1 RETROSPECTIVE
- 2 ANALYSED PREVALENCE RATES
- 5 ANALYSED RECURRENCE,
PROGRESSION & REGRESSION RATES

RESULTS CTD

- For the studies that analysed prevalence rates, one study found a statistically significant decrease in the prevalence rates with HAART use, while the other one showed a non-statistically significant increase in prevalence rates

RESULTS CTD

- FOR STUDIES THAT EVALUATED REGRESSION, PROGRESSION AND RECURRENCE RATES
 - Three of the studies showed increased rates of regression with HAART use, one study showed that regression rates were comparable in all the groups and one showed statistically significant increase in progression rates with HAART use

CONCLUSIONS

- **The question of the effect of HAART on CIN has not been adequately addressed by the studies in this review. The studies give conflicting results.**
- **The current recommendations of close cervical cancer screening surveillance in women infected with HIV should still be followed even in women on HAART until there is enough evidence to suggest otherwise.**
- **There is still need to conduct large multi centre trials to address this question.**
- **This should be possible in the near future with the widespread availability and affordability of HAART in developing countries where both HIV and cervical cancer are major health problems.**