

Prevalence and associated factors for peripheral neuropathy among patients on stavudine
attending Meru district hospital comprehensive care centre, kenya

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ABSTRACT

Peripheral neuropathy has been recognized as one of the undesired side effects of antiretroviral therapy particularly nucleoside transcriptase inhibitors (NRTI). Stavudine, a NRTI is used widely to combat HIV and AIDS in Kenya and other resource limited countries. This study sought to determine the prevalence and associated factors for peripheral neuropathy among patients on stavudine attending Meru District Hospital Comprehensive Care Centre. The study area has a high enrolment of HIV positive patients on stavudine. A cross sectional study was conducted over seven weeks between 1st October to 21st November 2010. A total of 275 HIV positive patients who were > 13 years and were on stavudine for six to thirty six months were selected through systematic random sampling. A peripheral neuropathy screening tool was administered to ascertain their neuropathy status and the grade. A semi- structured questionnaire was thereafter administered and logistic regression used to determine the independent risk factors. Epi-info software was used for data entry and analysis. The mean age was 39 years (± 10) and range was 13-70 years. Fifty nine percent (n=275) of the participants were females. The prevalence of peripheral neuropathy was found to be 25.1 % (95% CI 18.1-28.3). Forty seven (68.1%) of the respondents had grade I, 19 (27.1%) had grade II and 3 (4.4%) grade III. In multivariate analysis, patients who were 42 years and older (AOR 1.82; 95% CI: 1.03-3.2; P value 0.04) and those with a CD4+ count of less than 130 cells/mm³ (AOR 2.3; 95% CI: 1.2-4.38; p-value 0.012) were at greater risk of developing peripheral neuropathy. Peripheral neuropathy is prevalent among patients on stavudine and age older than 42 years and CD4+ count less than 130 cells/mm³ were independent risk factor for peripheral neuropathy. Closer monitoring of patients on stavudine is recommended and older patients and those with a low CD4+ count should be prioritized for change to safer and non neurotoxic regimens.