Thrombocytopenia a marker/predictor of poor outcomes in HIV positive patients after the initiation of HAART in patients treated at Kalafong Hospital, a retrospective analysis.

DR GKG Ndhlebe, Prof DG Van Zyl, Dr MS Myburgh

University of Pretoria

Introduction

Thrombocytopenia is a common feature and or complication amongst HIV positive patients. It has been associated with increased morbidity and mortality, accelerated deterioration in CD4+ cell counts and accelerated progression to AIDS. The management of patients with HIV related thrombocytopenia includes ruling out secondary causes and prescribing HAART as the initial choice of treatment.

Research aims and Objectives

The aim of this study was to assess whether HIV related thrombocytopenia is a marker/ indicator of poor response in-terms of CD4+ cell counts and HIV viral load after the initiation of HAART.

Methods

We performed a single centre retrospective study on a convenience sample using the immunology clinic HIV database. All patients with HIV who attended the clinic from the period 01/01/2013 to 31/12/2013 at Kalafong Hospital were assessed for eligibility and enrolled into the study. The prevalence, associated factors, outcomes of HIV related thrombocytopenia in terms of serial CD4+ cell counts, and HIV viral load of these patients were determined.

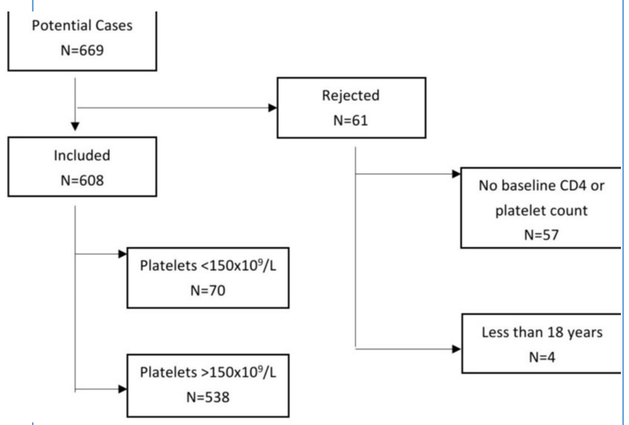

Figure 1: Flow diagram of sample number of patients

Results & Discussion

Data was captured for a sample of 669 HIV positive patients, of which 61 were excluded from further analysis due to various reasons and thus the final sample had 608 patients. Of the patients, 97.9% (575) were of African ethnicity and 60% of the patients were female. The mean age of the study participants was 36.77 ±9.79 years, ranging from 19-70 years old. The prevalence of HIV related thrombocytopenia was 12% (77 patients) with a mean CD4+ cell count of 191.63 cells/mm^3 at baseline. The platelet count among patients with thrombocytopenia at baseline increased on average by 92.96 x 10^9/L at 6 months of therapy while the average for patients without thrombocytopenia at baseline decreased on average by 3.33 x 10^9/L (p-value<0.001). The average viral load among thrombocytopenic patients at baseline went down by 2114.03 copies/mL compared to an increase of 6408.44 copies/mL among patients without thrombocytopenia for the same period (p value=0.612).

Limitations

The main limitation of our study was its retrospective nature. Because of this, many variables in this study population, missing data and many potential confounders were not controlled for. In addition, since the study was conducted at a single tertiary institution the results may not apply to other patient populations at local clinics. Furthermore, we chose only to include patients with mild thrombocytopenia, and this may have also introduced a selection bias.

Conclusion

HIV related thrombocytopenia remains an important clinical problem in the era of widespread use of HAART. The relationship between thrombocytopenia, CD4+ cell count and HIV viral load is complex. HAART therapy does seem to improve thrombocytopenia in patients with thrombocytopenia before initiation of HAART.

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