

ABSTRACT

Introduction

There are millions of HIV positive patients on antiretroviral therapy (ART) who are still taking a Fixed-Dose Combination pill (FDC) containing efavirenz. Patients with efavirenz levels above the therapeutic range's upper limit have experienced an increased frequency of side effects. Some studies have shown patients with efavirenz toxicity presenting with a late-onset ataxia and encephalopathy syndrome. (1,2)

This study aims to examine the records of HIV positive patients on ART with efavirenz-induced ataxia and assess if the MRI brain is normal or abnormal. Because these patients usually present with some form of encephalopathy, ranging from delirium to frank psychosis, MRI brain is considered the best investigation.

Methods

In this study, we reviewed the records of 25 HIV positive patients on ART who presented with efavirenz-induced ataxia-encephalopathy. The MRI brain images were stratified into two groups: Normal and Abnormal. We then assessed the abnormalities and described them. We also documented socio-demographic data, clinical features, HIV history, and efavirenz levels.

Frequency tables were computed and reported, pie charts were used for MRI brain abnormalities and histograms for age, CD4 count, and efavirenz levels.

Results

Out of 25 HIV positive patients with efavirenz-induced ataxia, 15 (60%) MRI Brain images were normal, and 10 (36%) were abnormal. In terms of MRI brain abnormalities found, 3 (12%) had features of HIV-associated dementia, 2 (8%) had generalized atrophy, 2 (8%) had cerebellar atrophy, and 3 (12%) had other unrelated abnormalities.

Conclusion

Most MRI brain images of patients with efavirenz-induced ataxia are normal. Few MRI brain images were abnormal. The abnormalities found were not related to efavirenz-induced ataxia, and there were no features of encephalopathy on the MRI brain images.