

Prevalence of Hepatitis B co-infection amongst HIV infected children attending a care and treatment centre in Owerri, South-eastern Nigeria

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Abstract

Introduction: Hepatitis B infection impacts negatively on disease progression in HIV infected children thereby increasing morbidity and mortality. In spite of the foregoing, there is paucity of data on Hepatitis B co-infection in children living with HIV in Owerri, South Eastern Nigeria. This study set out to determine the prevalence of Hepatitis B Co- infection in HIV infected children attending the Paediatric HIV Care and Treatment clinic of the Federal Medical Centre Owerri.

Methods: The study period was between February and July 2010. Testing for Hepatitis B infection was done using the ACON Hepatitis B surface antigen Rapid test strip. (Acon Laboratories Inc. San Diego.CA).

Results: A total of 139 HIV infected children were enrolled during the study period. The overall prevalence of Hepatitis B Co- infection was 5.8% (8/139). The prevalence in males was 8.2% (5/61) while in females it was 3.8% (3/78). The prevalence of Hepatitis B Co- infection amongst patients on antiretroviral therapy was 4.6%. They accounted for 62.5% of Hepatitis B Co- infection in our study. Previous blood transfusion, gender and age of patient did not show statistically significant relationship with Hepatitis B Co-infection.

Conclusion: Though our study shows a low prevalence of Hepatitis B co infection in HIV infected children in our centre, reduction of the rate is still strongly desirable. Reduction can be achieved by strengthening the uptake of Hepatitis B vaccine as part of the routine childhood immunization programme.

Introduction

Sub-Saharan Africa continues to bear the brunt of the global epidemic of HIV/AIDS, with two thirds of all adults and children with HIV infection living in the sub-continent [1]. HIV infection in children is still of significant public health importance because of its impact on childhood morbidity and mortality and its attendant negative impact on health services delivery [2]. At the end of 2009, HIV infection accounted for 3% of deaths in children younger than 5 years in Nigeria [2]. Most of the HIV infection in children have been linked to mother to child transmission. Infection could occur during pregnancy, at the time of delivery or post partum through breastfeeding [3].

Sub Saharan Africa is also a region with high prevalence of Hepatitis B infection [4]. Several studies in Nigeria have given varied but significantly high Hepatitis B infection prevalence rates [5-7]. While most of these studies were on adults or the general population, a study in the Niger delta area of Nigeria documented a prevalence of 12.4% amongst children [8].

Given that HIV infection and Hepatitis B infection have similar means and routes of transmission, children who are at risk for one would also be at risk for the other. Newborns who are exposed to HBV and HIV from co infected mothers that do not receive post exposure prophylaxis for HBV have been shown to develop chronic HBV infection [9].

With increased access to antibiotics and antifungal agents, hepatitis viruses, especially hepatitis B and C, are emerging as the leading causes of morbidity and mortality among HIV infected children [10]. This would suggest that the HIV infected child with Hepatitis B co-infection is prone to worse outcome as compared to the child who is only HIV infected.

There is paucity of information within South Eastern, Nigeria on the prevalence of Hepatitis B Co-infection in children who are HIV infected. This study set out to determine the prevalence of Hepatitis B Co- infection amongst HIV infected children attending the Paediatric HIV Care and treatment clinic in our centre in Owerri, South Eastern Nigeria.