Feeling the pressure: Prevalence and risk factors associated with systemic hypertension among HIV infected children and adolescents

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Background: The widespread success of combination ART has contributed to increasing lifespans among the affected, and long-term complications associated with HIV infection and ART are becoming increasingly apparent. Hypertension is a well-characterized risk factor for future cardiovascular disease. Only one study has previously described the prevalence and risk factors associated with hypertension in HIV infected children and adolescents. We aimed to study these in a cohort from south India.

Methods & Materials: Children and adolescents attending the pediatric HIV clinic at Nireekshana-ACET in Hyderabad were invited to participate in the study. Clinical and laboratory data were collected through medical chart review. Anthropometry was recorded using standard equipment. Variables suspected to contribute to hypertension including body mass index (BMI), active/passive tobacco exposure, medical comorbidities, ART or other medication use were recorded. Blood pressure was measured using a standard clinical sphygmomanometer with appropriate bladder cuff size. Hypertension was defined as average systolic BP or DBP levels ≥ 95th percentile for gender, age, and height on ≥ 3 occasions, while pre-hypertension was defined as average SBP or DBP levels >90th percentile but <95th percentile.

Results: Among 97 children who participated in the study, mean age was 11.2±2.8 years (range 3-18); 51 (52.5%) were males. All were perinatally infected, 88 (90.7%) were in early stages of disease (WHO clinical stage 1 & 2); mean CD4 count was 771.31±383.61 cells/mm³. Two-third were on ART (mean duration 3.68±3.22 years). Around half (53) the children had normal BMI, 44 (45.3%) were underweight and one child was overweight. None of the children had exposure to tobacco smoke, alcohol, steroids or any BP elevating medications. Two children had past history of urinary tract infection. Only 2 children (2%) were found to be pre-hypertensive, and none (0%) were hypertensive.

Conclusion: Our findings differ from those reported by a previous study from the USA, which reported high rates of hypertension (20%) and pre-hypertension (15%) among infected children and adolescents. Genetic, lifestyle and anthropometric differences could be reasons for this. Since data are scanty, larger multi-centric studies are needed to quantify and qualify the burden of hypertension and future cardiovascular disease among children living with HIV.

Disclosure of HIV status: Perspectives from infected children in India

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Background: Following the widespread uptake of highly effective ART, young children living with HIV are entering adolescence and beyond, necessitating disclosure of HIV status. Although national and international guidelines advocate full disclosure, disclosure rates in India continue to remain low. We aimed to understand children’s perspectives and experiences following full disclosure in the Indian context.

Methods & Materials: Children attending HIV clinics at 3 tertiary-care centres in South India were screened for full disclosure. Those who had full disclosure were further administered a pre-tested questionnaire assessing their knowledge about HIV, ART, perceptions following disclosure, stigma and ideas about their future. Disclosure was considered as ‘full’ when it involved the child being told that he/she has HIV specifically.

Results: A total of 247 caregiver-children pairs participated in the study. Only 24 (9.7%) children were reported to have full disclosure. The mean age of these children was 14.02±1.8 years (range 10-18); 14 were males. A parent was the primary caregiver for 16 children. Mean age at disclosure was 11.2±2.18 years (range 7-15). Medical personnel had disclosed to 14 children, while parents were responsible for disclosure to only 3 children. Disclosure was met with a sense of relief and acceptance by one-third of the children, and 21 children subsequently disclosed their status to others. Despite full disclosure, 5 did not know how HIV spreads and 3 did not know how infection could be prevented. Notwithstanding their positive status, most children felt that they were treated well at school and by their immediate relatives, although 11 children mentioned that they needed to hide while taking ART. Over 75% were hopeful of meaningful lives ahead. None of the fully disclosed children reported suboptimal adherence to ART.

Conclusion: Disclosure rates in India continue to remain low. Most of the fully disclosed children were comfortable to learn about their status, received good support from their immediate family and community and exhibited a positive outlook towards their future. The knowledge about HIV despite full disclosure was found to be inadequate, and parents seem to depend on medical personnel for disclosure. Future guidelines need to address these gaps to build on potential gains from full disclosure.

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