

**Project No** : 4118/2011

**EVALUATION OF ENDOCRINOLOGICAL ABNORMALITIES AND GROWTH  
IMPAIRMENT IN HIV INFECTED CHILDREN**

**Principal worker**  
WG CDR BM JHON

**Unit**  
AFMC Pune

**OBJECTIVES**

1. To determine the prevalence of endocrinological abnormalities and growth impairment in HIV infected children
2. To evaluate the association between endocrinological abnormalities and growth failure

**METHODOLOGY**

It was a cross sectional descriptive study over 18 months period. The study population comprised of children less than 18 years routinely attending paediatric HIV OPD. In addition to detailed history and examination, blood samples were collected for T3, T4, TSH, GH, DHEAS, cortisol and IGFBP3. Statistical analysis for the data was performed using Graph Pad Prism version 5.00 for windows, Graph Pad Software, San Diego California USA.

**RESULTS**

A total of 100 HIV infected children were included in the study. The prevalence of growth failure was high. 19% children has height  $<-3SD$  and 59% children had height  $<-2 SD$ . The prevalence of endocrinological abnormalities was also high. 54% children had low T3 levels, 12% children had low T4 levels. TSH was high in 4%. Cortisol was found to be low in 44%, HHEAS was low in 25%, 58% children had low GH levels while IGFBP-3 levels were low in the entire cohort. There was a statistically significant association between growth failure and levels of T3 and GH.

**CONCLUSION**

Results show a high prevalence of growth failure and endocrinological abnormalities in HIV infected children.