

Prevalence of tuberculosis in HIV in Ethiopia in early HAART era: retrospective analysis

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The intersection of the human immunodeficiency virus (HIV) and tuberculosis (TB) epidemics has led to a dramatic upsurge in global TB incidence, resulting in remarkable increases in morbidity and mortality [[1-6](#)]. In Ethiopia where the burden of both diseases is immense [[7,8](#)] and where access to highly active antiretroviral therapy (HAART) was once limited, we found it useful to share our findings about TB/HIV interaction during early HAART era; our findings could serve as a base line against which the future impact of HAART would be assessed.

We did a retrospective review of charts of [287](#) patients on follow-up at ART clinic of Jimma University Hospital during the early HAART era (between 2003 and 2006). It was found that 57% of the participants were females and [78](#)% belonged to the age group 20 to 40 years.

More than half of the patients presented with at least one symptoms of chronic unexplained fever, chronic diarrhea, chronic cough or oropharyngeal candidiasis at the time of HIV diagnosis. Seventy-seven percent had advanced disease (WHO stages 3 or 4) at diagnosis. Only 73% had their CD4 count done at the time of HIV diagnosis, 36% of them had <200 cells/ μ L ([Table 1](#)).

Forty-five percent of the patients had HIV associated tuberculosis considered as clinical TB dating from two years prior to HIV diagnosis and ever since. Sixteen percent had active TB at time of HIV diagnosis or developed it since then. Of those diagnosed with active TB, 44% had previous history of TB. Only about 20% of them had smear-positive TB and thus diagnosis was based on constitutional symptoms or abnormal chest X-ray findings. Over half of them had isolated pulmonary TB and 41% had the disseminated form of the disease involving two or more organ systems. Lower CD4 counts and advanced WHO stages of the disease at time of diagnosis were strong predictors for the occurrence of active TB ($p<0.01$) ([Table 2](#)).

In conclusion, TB morbidity in HIV patients was found to be rampant in Ethiopia, in a setting where access for HAART was poor. The high proportion of disseminated forms of TB, atypical diagnostic findings and patients presentation at the advanced stage of the HIV were found to be further setback in such resource stretched country. The findings of