Background and Objective

- HIV related opportunistic infections (OIs) were major causes of morbidity and mortality before the widespread use of highly active antiretroviral therapy (HAART).
- Despite decrement in the post HAART era, OIs are continuing to be major causes of morbidity and mortality.
- Studies concerning OI occurrence after HAART were conducted in different parts of the world, but such studies are scarce in Eastern Africa.
- The aim of this study was to determine the incidence and predictors of OIs after initiation of HAART at a University teaching hospital in North Ethiopia (Ayder Hospital, Mekelle).

Methods

- Health facility based retrospective single centered cohort study
- Study population was all HIV positive ART naive adolescent and adult aged ≥14 years ever started HAART at Ayder Referral Hospital during the period January 2009 to May 2012.
- Simple random sampling technique was used to select 317 patients from the record.
- Multivariate binary logistic regression model was used to determine factors for the occurrence of OIs after initiation of HAART. Kaplan-Meier method was used to estimate OI free survival time after HAART. Odds ratio, and P-value were determined to check association between variables.
- Data was extracted from hospital documents.

Results

- The incidence of OIs after HAART was 7.5 cases/100 person years.
- Mean CD4+ count at initiation of HAART was 121±81/µl, viral-load wasn’t documented as it is determined rarely.
- The median OIs free survival time after HAART was 2 months (1.2-2.9).
- Among the spectrum of OIs occurring before HAART, Tuberculosis accounts for half of the opportunistic illnesses i.e. 50.4% followed by oral candidiasis 15.6 %.
- Oral candidiasis, disseminated tuberculosis, pneumonia and CNS toxoplasmosis were the leading OIs after HAART (see table 2).
- More than half of OIs occurred within the first 3 months after start of HAART (see figure 1).
- A bed ridden functional status at initiation of HAART, presence of OIs before HAART, non-adherence and low hemoglobin level were predictors for the occurrence of OIs after HAART (see table 3).

Conclusion

- The incidence of OIs after HAART was higher than in previous studies.
- Tuberculosis, oral candidiasis and CNS toxoplasmosis were the leading OIs occurring after HAART initiation.
- More than half of OIs occurred within the first 3 months after start of HAART. There was a marked reduction in the incidence of OIs starting from 6 month.
- A bed ridden functional status, presence of OIs before HAART, non-adherence and low hemoglobin level were predictors for OIs after HAART initiation.
- Patients with these risk factors need strict follow up to reduce the morbidity and mortality attributed to OIs.