Paper #864

No Association of Cryptococcal Antigenemia with Death or Loss to Follow Up among HIV Patients: Ethiopia

Christopher Smitson*[1], A Tenna[2], M Tsegaye[3], A Shiferaw[4], A Aseffa[4], H Blumberg[1], and R Kempker[1]

[1]Emory Univ, Atlanta, GA, US; [2]Addis Ababa Univ, Ethiopia; [3]All Africa Leprosy, TB and Rehabilitation Training Ctr, Addis Ababa, Ethiopia; and [4]Armaeur-Hansen Res Inst, Addis Ababa, Ethiopia

Background: WHO guidelines recommend cryptococcal antigen (CRAG) screening among HIV$^+$ ART-naïve adults with a CD4 count <100 cells/µL in areas with a high burden of cryptococcal disease. There is limited data on clinical outcomes of ART-experienced patients with cryptococcal antigenemia. We assessed clinical outcomes of a predominantly asymptomatic, ART-experienced cohort of HIV$^+$ patients previously found to have a high (8.4%) prevalence of cryptococcal antigenemia.
Methods: The study took place at 2 ART clinics in Addis Ababa, Ethiopia. A retrospective study design was used to perform 12-month follow-up of HIV$^+$ patients (CD4 <200 cells/µL) previously screened for cryptococcal antigenemia. Medical chart abstraction was done to obtain data on clinic visit history, ART use, CD4 count, opportunistic infections, and patient outcome. We evaluated the association of cryptococcal antigenemia and a composite outcome of death and loss to follow-up (LFU) using logistic regression.
Results: Among 367 HIV$^+$ patients who underwent CRAG screening, the mean age was 36.7 years, 45% were male, mean CD4 count was 123 cells/µL, and 74% were receiving ART. At 12-month follow-up, 94% of patients with at least 1 follow-up visit were receiving ART and the mean increase in CD4 was 78 cells/µL. For patient outcomes, 323 (88%) were alive, 8 (2%) dead, and 36 (10%) LFU 12 months after testing. Among 31 patients with a CRAG$^+$ test (titers ≥1:8), 28 were alive (titers ≤1:512), 1 dead and 2 LFU (titers ≥1:1024). Only 3 CRAG$^+$ patients received

fluconazole and none had lumbar puncture performed. In multivariate analysis, cryptococcal antigenemia was not predictive of death/LFU (adjusted odds ratio [aOR] = 1.3, 95% confidence interval [CI] 0.3-4.8). Significant risk factors for death/LFU among the entire cohort included CD4 count <100 cells/µL at baseline (aOR 3.0, 95%CI 1.4-6.7), increasing CD4 count (aOR 0.1, 95%CI 0.1-0.3), and receiving ART at last follow-up visit (aOR 0.1, 95%CI 0.02-0.2). Results are finalized and the study is completed.

Conclusions: In an asymptomatic HIV$^+$ cohort with high rates of ART use, cryptococcal antigenemia is not predictive of death or LFU. Our results support recent WHO guidelines recommending screening for cryptococcal disease only in ART-naïve patients with a CD4 <100 cells/µL and suggest that ART is adequate in controlling low level cryptococcal antigenemia.