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905.OUTCOMES RESEARCH-LYMPHOID MALIGNANCIES

Could Active TB be a Major Contributor to the Disparity in Presentation and Mortality for cHL in HIV + and HIV - Individuals in South Africa?

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BACKGROUND Classical Hodgkin lymphoma (cHL) outcomes in people living with HIV (PLWH) in South Africa are substantially worse than those in HIV-negative patients. Prior and current tuberculosis (TB) infection are common amongst PLWH and cHL in South Africa. We set out to evaluate the effect of active TB disease on presenting characteristics and outcomes in newly diagnosed cHL patients receiving care in Johannesburg, South Africa.

METHODS With approvals from the Human Research Ethics Committee of the University of the Witwatersrand and the Johns Hopkins Institutional Review Boards, we conducted a prospective, observational study of newly diagnosed patients with cHL ≥18 years at Chris Hani Baragwanath Academic and Netcare Olivedale Hospitals in Johannesburg, South Africa between March 2021 and April 2023. Participants' data include history, abstracted HIV status, CD4 count, HIV viral load at the time of cHL diagnosis, baseline laboratory data, staging work-up, and review of diagnostic pathology. TB diagnosis was based on routine clinical procedures. Pre-treatment whole blood was collected in cell stabilizing tubes and processed locally using a plasma cell-free DNA (cfDNA) protocol. cfDNA was then isolated in the USA with subsequent analysis of fragment length, cfDNA and gDNA concentrations, and EBV copy number.

RESULTS Among 43 patients, 28 (65%) were PLWH. Fifty-one percent were female, mean age was 41 years and 98% of patients were diagnosed with advanced stage disease and B-symptoms. Forty-seven percent had marrow involvement including 18/28 (64%) PLWH. Among PLWH, mean CD4 count was 180 and 61% of patients had viral load <50 copies at time of diagnosis. There was no difference in age, sex, stage, performance status or International Prognostic Index (IPI) by HIV serostatus. PLWH had higher plasma EBV copy number at presentation (3.6 vs. -0.2 median Log $_{10}$copies/mL, p=0.0123) and higher cfDNA (41.8 vs. 19.8 ng/mL), and lower overall survival at 1-year (57.1% vs. 86.7%, p=0.0489) compared to HIV-seronegative. Overall, 10 cHL patients were receiving treatment for active TB (23%); Most 9/10, were PLWH. Patients with TB and cHL were more likely to have bone marrow involvement (90% vs 33%; p=0.002) and significantly lower mean CD4 count (70.6 vs 232.2;p=0.009), hemoglobin (6.9 vs 9.6;p=0.01), platelet count (77.7 vs 363.5;p=0.0002) and albumin (22.7 vs 33.1; p=0.0004) at time of diagnosis compared to those without active TB. In univariate analysis, HIV serostatus, active TB infection, bone marrow involvement, lower mean platelet count, absolute lymphocyte count and albumin, IPI, baseline EBV and plasma cfDNA were all associated with increased mortality.

CONCLUSIONS Active TB infection was common amongst PLWH with newly diagnosed cHL in South Africa. Bone marrow involvement and traditional laboratory markers of poor prognosis including anemia and hypoalbuminemia were more com-

mon among patients with TB. The role that active TB and its treatment plays in the increased mortality for HIV(+) cHL patients warrants further investigation.

Disclosures Xian: *Invivoscribe:* Honoraria.

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