

The prevalence of thrombocytopenia and leucopenia among people living with HIV/AIDS in Ethiopia: a Systematic review and meta-analysis

Habtye Bisetegn

Wollo University, Ethiopia

Introduction: Thrombocytopenia and leucopenia are frequently encountered hematological disorders among people living with HIV/AIDS. This systematic review and meta-analysis were aimed to indicate the national prevalence of thrombocytopenia and leucopenia among HIV/AIDS patients.

Methods: This systematic review and meta-analysis was conducted following the preferred reporting items for systematic review and meta-analysis (PRISMA) guidelines. A systematic search was conducted from February 01, 2021 to April 02, 2021 using electronic databases Google Scholar, PubMed, Web of Sciences, Google, EMBASE, SCOPUS and ResearchGate. The quality of the included studies was assessed using Newcastle-Ottawa Quality Assessment Scale (NOS) adapted for cross-sectional studies. Data analysis was done using STATA version 14 using metan commands. Random effect meta-analysis was used to estimate the pooled prevalence of thrombocytopenia and leucopenia among people living with HIV/AIDS in Ethiopia.

Result: Of the 349 initially searched articles, 90 were assessed for eligibility and only 13 articles published from 2014 to 2020 were included in the final meta-analysis. A total of 3,854 participants were involved in the included studies. The pooled prevalence of thrombocytopenia was 9.69% (95%CI: 7.40–11.97%). Significant heterogeneity was observed with I² values of 84.7%. Thrombocytopenia was 11.91% and 5.95% prevalent among HAART naive and HAART exposed HIV/AIDS patients, respectively. The pooled prevalence of leucopenia among HIV/AIDS patients was 17.31% (95%CI: 12.37–22.25%).

Conclusion: This study showed a high prevalence of thrombocytopenia and leucopenia among people living with HIV/AIDS, indicating the necessity of regular screening of HIV seropositive patients for different hematological parameters and providing treatment.

Biography

Habtye Bisetegn has completed his BSc degree in Medical Laboratory Sciences at the age of 25 years from Wollo University, College of medicine and health sciences and MSc in Medical parasitology from University of Gondar, School of Biomedical and laboratory sciences. He is the head department of Medical Parasitology. He has published more than 6 papers and more than 10 manuscript in reputed journals being under review.