Impact of HIV infection on outcomes in patients admitted with complete heart block: A Nationwide study

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Background: Immune dysregulation and social stigma associated with HIV infection have been linked to poor outcomes in hospitalized patients. This study aims to compare in-hospital outcomes in patients admitted with complete heart block (CHB) with and without HIV.

Methods: The National Inpatient Sample (NIS) 2020 Database was analyzed for adult patients with complete heart block as the primary discharge diagnosis and HIV infection as a secondary discharge diagnosis, identified using ICD-10 codes. The primary outcome measured was inpatient mortality, with secondary outcomes including length of stay (LOS), hospitalization charges, cardiogenic shock, cardiac arrest, acute respiratory failure, and pacemaker intervention rates and timing. Multivariate logistic and linear regression analyses were employed to adjust for confounders. Statistical analyses were conducted using STATA software.

Results: Out of 37,480 patients admitted with complete heart block, 112 (0.30%) were identified as having HIV. The adjusted odds ratio (aOR) for inpatient mortality in CHB patients with HIV, compared to those without HIV, was 1.72 (95% CI 0.19-4.99, p=0.621). HIV status did not significantly influence the rates (aOR 1.04, 95% CI 0.32-3.36, p=0.94) or timing (p=0.28) of permanent pacemaker intervention.

Conclusions: HIV infection did not significantly impact mortality, health, or procedural outcomes in patients admitted with complete heart block. These findings support the notion of equitable care in complete heart block patients, regardless of HIV status.

Keywords: HIV, Complete Heart Block, Mortality, Pacemaker

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