Factors associated with erectile dysfunction diagnosis in men with HIV infection: a case-control study

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Abstract

Objectives: HIV infection is associated with increased risk of erectile dysfunction (ED); however, factors associated with ED remain unclear. We evaluated the prevalence of ED among men living with HIV and factors associated with ED diagnosis in the US Military HIV Natural History Study (NHS).

Methods: A retrospective cohort study evaluated participants in the NHS, a cohort of HIV-positive active duty members and beneficiaries with HIV infection. Men with a diagnosis of ED after HIV diagnosis were included. Cohort controls without ED diagnosis were matched 2:1 by age at HIV diagnosis and duration of follow-up. Multivariate logistic regression models were used to identify factors associated with ED.

Results: A total of 543 of 5682 male participants (9.6% prevalence) had a diagnosis of ED, of whom 488 were included in the analysis. The median (interquartile range, IQR) age at ED diagnosis was 43 (37.0-49.0) years and the time from HIV diagnosis to antiretroviral therapy (ART) start was longer for cases (5.0 years, IQR: 2.0-9.0) than for controls (3.0 years, 1.0-6.0; P < 0.01). Cases had higher proportions of multiple comorbid conditions, including depression (33.4% vs. 21.7%), tobacco use (19.7% vs. 9.0%) and sleep apnoea (14.8% vs. 4.2%) compared with controls (P < 0.01 for all). Logistic regression showed increased odds of ED for delayed ART initiation > 4 years [odds ratio (OR) = 2.05, 95% confidence interval (CI): 1.56-2.71], protease inhibitor use ≥ 1 year (OR = 1.81, 95% CI: 1.38-2.38) and sleep apnoea (OR = 2.60, 95% CI: 1.68-4.01).

Conclusions: Erectile dysfunction was common in men with HIV and associated factors included both HIV-related and traditional factors.