

Frailty is associated with mortality and incident comorbidity among middle-aged HIV-positive and HIV-negative participants

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Abstract

Background

Frailty is associated with mortality and morbidity in the general geriatric population, but less is known about its impact among the ageing but generally younger population with HIV (PWH).

Methods

The impact of frailty on all-cause mortality, during 6 years of follow-up and incident comorbidity, during 4 years of follow-up was assessed among 598 HIV-positive and 550 comparable HIV-negative participants of the AGE_hIV Cohort Study, aged ≥ 45 years. Frailty encompasses 5 domains; weight loss, low physical activity, exhaustion, decreased grip strength, and slow gait speed. Presence of ≥ 3 denotes frailty, 1-2 prefrailty and 0 robust. Multivariable Cox and logistic regression models were used to assess the independent relationships of frailty with both outcomes, adjusting for HIV-infection and traditional risk factors.

Results

At baseline 7.5% (n=86) of participants were frail. During follow-up 38 participants died. Mortality rate was significantly higher among frail participants (frail 25.7/1,000 person-years of follow-up (PYFU; 95% confidence interval [95%CI] 14.2-46.4); prefrail 7.2/1,000 PYFU (95%CI, 4.7-11.2); robust 2.3/1,000 PYFU (95%CI, 1.1-4.9)). In fully adjusted analyses, frailty remained strongly associated with death (HR 4.6, 1.7-12.5) and incident comorbidity (OR 1.9, 1.1-3.1). No interactions were observed between frailty- and HIV-status in all analyses.

Conclusions

Frailty is a strong predictor of both mortality and incident comorbidity independent from other risk factors.