Prevalence, incidence and risk factors for falls in older people with and without HIV

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BACKGROUND

Falls are a clinically relevant outcome in geriatric patients. The objective was to compare prevalence of falls in people with and without HIV (OPWH vs OPW/oH) aged >65 years and to assess incidence and risk factors for falls in OPWH.

METHODS

This was a prospective study of participants of the GEPPO cohort including OPWH and community-dwelling controls aged ≥65 yrs (OPW/oH). Inclusion criteria was availability of at least one evaluation of self-administered standardized falls questionnaire. Multimorbidity (MM) was defined as ≥3 comorbidities.

- Step 1: to compare risk of falls in OPWH vs OPW/oH, we analyzed available falls records and variables collected at the previous visit with a Cox regression model.
- Step 2: to identify falls incidence and its specific risk factors in OPWH, we analyzed the entire population of the GEPPO cohort enrolled between 2017 and 2021, with a survival model for time varying covariates for multiple events.

RESULTS

- Step 1: out of 311 OPWH (median age 79.8, 51% males, 28% with MM) and 109 OPW/oH (median age 70.4, 78% males, 68% with MM) we observed 180 falls, 158 (51%) in OPWH and 22 (20%) in OPW/oH.

After adjustment for age, gender and MM, OPWH had higher risk of fall compared to OPW/oH (HR 1.62 95%CI 1.07-2.46; p=0.024) (Fig.1).

This study demonstrates a higher prevalence of falls in older people with HIV when compared to geriatric general population. Multimorbidity but not CD4+ cell count or HIV duration, was an independent risk factor for falls among older people with HIV.

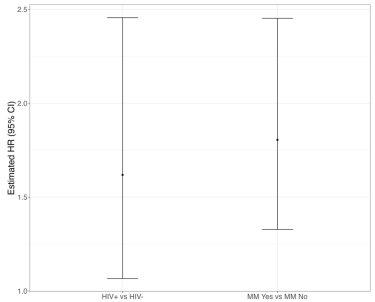


Fig. 1 Estimated HR (hazard ratio) of falls in OPWH vs OPW/oH (people with and without HIV aged >65 years) and in OPWH with or without MM (multimorbidity).
- OPWH has higher risk of fall compared to OPW/oH (HR 1.62 95%CI 1.07-2.46; p=0.024)
- Presence of MM is a risk factor for falls (HR 2,23 95%CI 1.19-4.21; p=0.013)

- Step 2: among a total of 1331 OPWH in the GEPPO Cohort (median age 68.4 yrs, 82% males, median BMI 25.1) we observed a total of 437 falls during a median 3.4 years of follow up. Falls incidence was 437 per 650/PY FUP.

Median CD4 of the cohort was 616 cells, 97% with undetectable HIV RNA, 46% with an HIV duration >20 years, MM was present in 717 (55%) patients, 330 patients (25%) received InSTI and 273 patients (21%) received InSTI + NNRTI and/or PI.

After adjusted for current age, HIV duration, CD4, HIV RNA undetectability and BMI, higher age was protective from falls (HR 0.92 95%CI 0.889-0.96; p=<0.001), while presence of MM was a risk factor for falls (HR 2,23 95%CI 1.19-4.21; p=0.013) (Fig.1).

CONCLUSIONS

This is the first study which compared falls prevalence in OPWH vs OPW/oH being also able to identify falls incidence and variables associated with this geriatric syndrome.

ADDITIONAL KEY INFORMATION

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