Geriatric Syndromes are Common Among Older HIV-Infected Adults

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BACKGROUND

- Geriatric syndromes are multifactorial conditions such as falls and frailty that are used to identify vulnerable older adults in the general population 65 and older
- Limited data exists on geriatric syndromes in older HIV-infected adults

Aims:

1. Describe the frequencies of geriatric syndromes in HIV-infected adults age 50 and older with viral suppression
2. Examine HIV-related & non-HIV related factors associated with geriatric syndromes
3. Compare frequencies of geriatric syndromes in our study to an HIV-uninfected population age 50 and older

METHODS

Design

- Cross-sectional study within UCSF SCOPE cohort
- Inclusion criteria: Age 50 and older, on ART with an undetectable viral load for ≥3 years

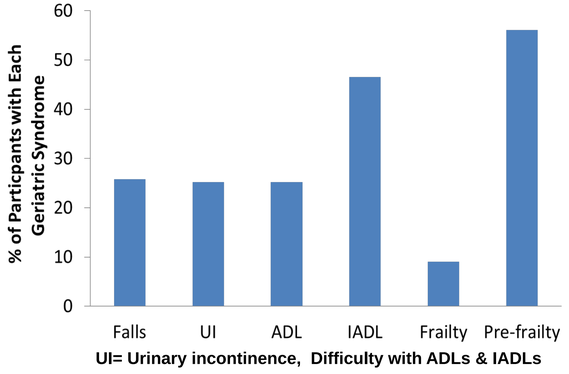
Measures

- Sociodemographics, number of co-morbidities and non-antiretroviral medications, proximal and nadir CD4 count, exposure to early nucleoside agents
- Geriatric syndromes:
  - Falls: Self-report "Have you fallen in the past year?"
  - Urinary incontinence: Self-report based on the International Consultation on Incontinence Questionnaire (ICIQ)
  - Pre-frailty and frailty using Fried Frailty Criteria
  - Functional Impairment: Self-report of Activities of Daily Living (ADLs) and Instrumental Activities of Daily Living (IADLs)
- Poisson models used to estimate risk of more geriatric syndromes
- Age adjusted comparison of males in Health & Retirement Study, a national cohort study of adults 50 and older

RESULTS

Participant Characteristics n=155	Median (IQR) or n (%)
Age	57 (IQR 54-62)
Male	145 (93.6)
Race/Ethnicity	
Caucasian	98 (63.2)
African American	28 (18.1)
Other	29 (18.7)
HIV Transmission	
MSM	124 (80.0)
Heterosexual	23 (14.8)
IVDU	18 (11.6)
Other	13 (8.4)
Length of HIV infection (years)	21 (16-24)
CD4 cell count (cells/mm^3)	567 (398-752)
CD4 nadir (cells/mm^3)	174 (51-327)
Exposure to D4T,DDI,DDC or AZT	115 (74.2)
Number of comorbidities	4 (3-6)
Number of non-ART medications	9 (6-12)

Figure 1. Frequencies of Geriatric Syndromes

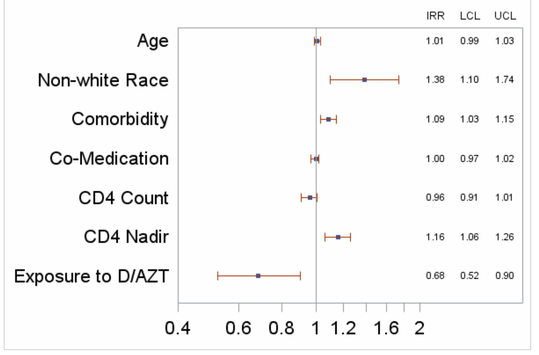


UI= Urinary incontinence, Difficulty with ADLs & IADLs

Table 2. Age adjusted Comparison to National Health & Retirement Study (n=8291)

Geriatric Syndrome	HIV + N (%)	HIV – Unadjusted N (%)	P - value	HIV – Age adjusted (%)	P- value
Falls*	37 (26)	1384 (34)	0.025	24%	0.647
Urinary Incontinence	35 (24)	1012 (11)	<0.001	9%	<0.001
Difficulty with 1+ ADL	36 (25)	1274 (14)	0.003	12%	<0.001
Independent	109 (75)	6850 (86)	0.001	88%	<0.001
Difficulty	24 (17)	785 (9)		8%	
Dependent	12 (8)	489 (5)		4%	
Difficulty with 1+IADL	41 (28)	1611 (17)	0.002	14%	<0.001
Independent	104 (72)	6513 (83)	<0.001	86%	<0.001
Difficulty,	22 (15)	284 (3)		3%	
Dependent	19 (13)	1327 (13)		10%	
Frailty	13 (9)	100 (7)	0.345	3%	0.009

Figure 2. Clinical Associations with Geriatric Syndromes



RESULTS

- Pre-frailty and difficulty with IADLs were the most frequent syndromes, occurring in 50% of participants (Fig.1) and along with urinary incontinence occurred at higher frequencies than a sample of HIV- adults (Table 2)
- Both HIV-related factors (lower CD4 nadir) and non-HIV factors (ethnicity, number of comorbidities) were associated with increased risk of geriatric syndromes (Fig. 2)
- Unexpectedly, exposure to early nucleoside agents was associated with decreased risk of geriatric syndromes suggesting a possible effect of long term survivors (Fig. 2)

CONCLUSIONS

- HIV-infected adults may be at increased risk of geriatric syndromes
- Association of more geriatric syndromes with lower CD4 nadir suggests that earlier initiation of cART may help to prevent age related complications
- Prevention and management of co-morbid conditions which was associated with more geriatric syndromes may also have important impact on health for aging HIV-infected adults
- Geriatric principles should be considered in the care of the aging HIV-infected population

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