TUPEB021

Co-morbidities in HIV positive and HIV negative individuals aged ≥60 years - a comparative analysis

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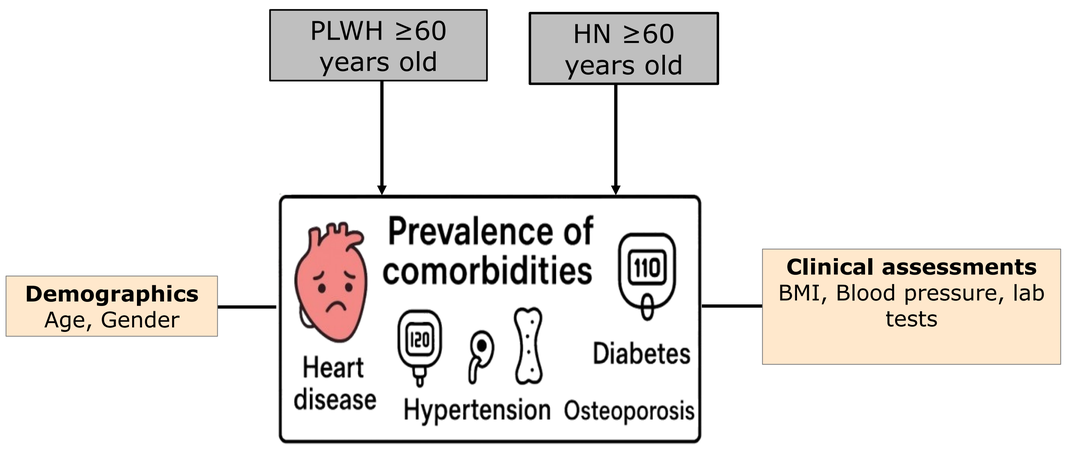
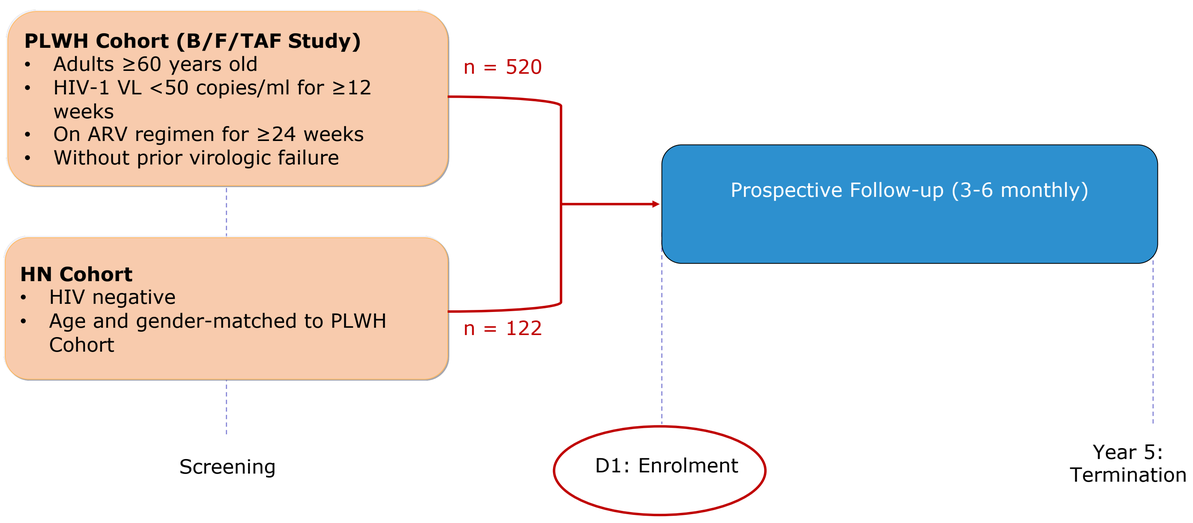
BACKGROUND

- The higher life expectancy in many Sub-Saharan African countries is coupled with a higher prevalence of age-related co-morbidities
- People living with HIV (PLWH) may have a higher prevalence of these co-morbidities due to HIV itself and/or the antiretroviral drugs
- Co-morbidities impact treatment choices and outcomes in PLWH
- We report the prevalence of non-HIV co-morbidities in older PLWH (≥60 years) and age and gender-matched HIV negative (HN) individuals



METHODS

- The Twiga Study assessed data from participants enrolled in the B/F/TAF Study:
  - The B/F/TAF Elderly Study enrolled 520 virally suppressed PLWH ≥60 years on first line antiretroviral therapy for at least 24 weeks and randomised them on a 1:1 ratio to continue their current regimen (n = 260), or switch to B/F/TAF (n = 260)
  - Alongside the clinical trial, we enrolled 122 age and gender-matched HIV negative participants
- Both cohorts will be followed up for a 5-year period



- We conducted a cross-sectional analysis of the baseline data for the two cohorts, in particular:
  - Assessed body mass index (BMI), blood pressure (BP), fasting blood sugar and lipids, estimated glomerular filtration rate (eGFR), lumbar and femoral neck bone mineral density (BMD), thoracolumbar vertebral fractures and Fried frailty phenotype
  - Compared the prevalence of co-morbidities and concomitant medications at enrolment into this 5-year study

RESULTS

- Between February 2022 and 2024, 520 participants were enrolled into the B/F/TAF Elderly Study
- A total of 122 age and gender-matched HN participants were enrolled
- A subset of 296 participants PLWH and all the 122 HN participants underwent DXA, vertebral X-rays and frailty assessment

RESULTS contd…

- All participants were black, the median age in both groups was 64 years (range 60-79), 267 (51.3%) PLWH and 61 (50%) HN were female
- There was no difference in median BMI, hypertension, hyperglycaemia or frailty between groups
- The median total cholesterol and LDL were higher in the HN group
- Substantially more PLWH had eGFR <60mL/min/1.73m^2 (33% PLWH, 10% HN)
- More PLWH had ≥1 comorbidity (78% PLWH, 58% HN) and ≥1 non-ARV medication (99% PLWH, 28% HN)

Characteristic	PLWH N = 520	HIV Negative (HN) N = 122	P-Value
Body Mass Index, kg/m^2	26.4 (23.2, 30.1)	27.4 (24.6, 30.4)	0.233
Hypertension	292 (56.2%)	46 (54.8%)	0.812
Hyperglycemia	39 (7.5%)	13 (10.7%)	0.239
Lipids			
LDL, mmol/L	2.8 (2.3, 3.5)	3.2 (2.7, 3.8)	**<0.001**
Total cholesterol, mmol/L	4.5 (3.9, 5.3)	5.2 (4.6, 5.9)	**<0.001**
Impaired kidney function (defined as eGFR <60 mL/min/1.73m^2)	172 (33.1%)	12 (9.8%)	**<0.001**
Number of comorbidities			**<0.001**
0	114 (21.9%)	51 (41.8%)	
1	240 (46.2%)	37 (30.3%)	
2	111 (21.3%)	26 (21.3%)	
3	41 (7.9%)	6 (4.9%)	
4	13 (2.5%)	2 (1.6%)	
≥5	1 (0.2%)	0 (0.0%)	
Number of concomitant medications (excluding ARVs)			**<0.001**
0	3 (0.6%)	88 (72.1%)	
1	344 (66.2%)	20 (16.4%)	
2	93 (17.9%)	9 (7.4%)	
3	52 (10.0%)	4 (3.3%)	
≥4	28 (5.4%)	1 (0.8%)	

- Median lumbar spine BMD was lower in PLWH (0.87g/cm^2 PLWH, 0.95g/cm^2 HN)
- There was no difference in thoracolumbar vertebral fractures (20% PLWH, 18% HN)

Characteristic	PLWH N = 296	HIV Negative (HN) N = 122	P-Value
BMD lumbar spine, g/cm^2	0.87 (0.78, 0.99)	0.95 (0.82, 1.08)	**<0.001**
BMD category (using lumbar spine T-score)			**0.005**
Normal	91 (30.8%)	50 (46.7%)	
Osteopenia	114 (38.6%)	41 (33.6%)	
Osteoporosis	90 (30.5%)	24 (19.7%)	
Thoracolumbar vertebral fractures (≥1)	48 (20.3%)	15 (17.9%)	0.635
Frail (≥ 3 frailty criteria)	5 (1.7%)	2 (1.6%)	>0.999

CONCLUSION

- PLWH compared to HN had more co-morbidities, medication burden, kidney impairment and osteoporosis. These findings highlight the burden of co-morbidities among older PLWH.

ACKNOWLEDGEMENT

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