



Significant clinical and epidemiological divergences in adults aging with HIV-1 compared to those with HIV-1 seroconversion at older age

Olga Tsachouridou, Marianthi Papagianni, Christiana Gogou, Theofilos Chrysanthidis, <u>Dimitrios Chatzidimitriou</u>, Despina Valagkouti, Panagiotis Kollaras, Pantelis Zebekakis, Lemonia Skoura, Symeon Metallidis

Infectious Diseases Unit, 1st Internal Medicine Department AHEPA University Hospital, Thessaloniki Greece National AIDS Reference Centre of Northern Greece, Thessaloniki, Greece

Background

The widespread use of cART has markedly improved the survival of HIV-1-infected patients leading to an increase in the number of elderly people living with HIV. Prolonged exposure to cART along with aging may increase risk of developing metabolic or cardiovascular complications. The prevalence of HIV-1 infection continues to increase with improvement of accessibility to HIV testing and care in Greece. However, the information on comorbidities among the HIV-infected patients has been lacking. The purpose of this study aimed to describe the comorbidity profile among the elderly patients with HIV-1 infection in Northern Greece.

Materials and Methods

This was a retrospective study that enrolled HIV-infected patients from January 1996 to June 2017. Two age groups were identified: patients aged less than 50 years at diagnosis of HIV and reached this age during the course of HIV infection and those aged \geq 50 years at diagnosis.

Baselinedemographics,clinicalcharacteristics,andco-medicationadministrationwererecorded.Hospitalizations,relateddiagnosesretention to carewere also assessed.

• 621 patients were classified to either study group.

Results

• 394 patients reached the age of 50 years or more during their infection, but diagnosis was made earlier. Their current age is 55.49 SD± 4.68.

219 patients were diagnosed at the age of
50 or more and their current age is 66.57
SD± 8.14.

•Most patients in both groups were males but possible mode of transmission differed with more patients declaring heterosexual contact for acquiring HIV –infection in the second group.

	Diagnosis < 50 y.o. N=394 pts	Diagnosis ≥ 50 y.o. N=219 pts	р
Mean age at diagnosis	39.41	58.79	p=0.003
SD±	7.06	6.87	
Sex			
Male	311 (78.93%)	189 (86.3%)	
Female	83 (21.06%)	30 (13.69%)	
Mode of transmission			
Heterosexual	113 (28.68%)	103 (47.03%)	
Homosexual	227 (57.61%)	68 (31.05%)	
PWID	25 (6.93%)	9 (4.1%)	
Other/Unknown	29 (7.36%)	39 (17.8%)	
Origin			
Greek	354 (89.84%)	198 (90.4%)	
Eastern Europe	22 (5.5%)	11 (5,0%)	
Western Europe	2 (0.5%)	0 (0.0%)	
African	10 (2.53%)	2 (0.91%)	
Other/Unknown	6 (1.52%)	8 (3.65%)	
cART			
Yes	297 (75.38%)	180 (82.19%)	
No	97 (24.61%)	38 (17.35%)	
Time till cART			
Months	31.46	10.44	p<0.005
SD±	45.09	18.22	
Administration of cART			
Once a day	55.1%	74.2%	
Mean death age	55.01	65.87	
SD±	5.06	8.64	
Hospitalization			
Yes	88 (22.4%)	108 (49.5%)	p<0.005
No	306 (77.6 %)	111 (75.34%)	
Co-morbidities			
CVD	11.9%	38.3%	p=0.004
Renal disease	7.6%	17.35%	p=0.002
Hypertension	12%	31.5%	p=0.01
Hyperlipidemia	35.8%	27.8%	p=0.003
Bone disease	8.8%	9.1%	
Non AIDS-malignancy	7.3%	15.9%	
N of co-medications			
1	127 (32.2%)	131(59.8%)	p=0.002
2	97(24.5%)	113(51.4%)	
3	69(17.4%)	86(39.2%)	
Mortality Rate (%)	15 (3.8%)	49 (22.37%)	p< 0.002

Table 1. Demographical and clinical data of patients enrolled categorized per age group.

Figure 1. Comorbidities classified by study age group



Limitations of the study

The data was not adjusted for age at the time of the analysis, nor for the time of diagnosis for each group. •Patients diagnosed in older age started cART significantly sooner and were more likely to receive antiretrovirals once a day, probably attributed to difference in the time period of the diagnosis of HIV.

•The group with older age at diagnosis suffered more frequently from hypertension, cardiovascular and renal disease, though groups didn't differ concerning bone disease (Table 1).

•Additionally, these patients were more frequently hospitalized (Figure 2), but had better retention to care.

•Hyperlipidemia on the contrary was more frequent in younger diagnosed patients.

Conclusions

Patients aging with HIV and those diagnosed at an older age present significant divergences in clinical and demographical data leading to the need of tailoring and individualizing health care management of the elderly HIV –population. Furthermore, investigation of all factors involved in comorbid conditions' onset requires further attention. • Mortality rate was also significantly higher in the older group, while these patients had twice more often one, two or three co-medications compared to patients diagnosed at a younger age (Figure 3).

Figure 2. Hospital admissions as recorded in both groups



Figure 3. Concomitant medications administered in both groups



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