HIV infection in migrant women from Sub-Saharan Africa in North East of Italy: a snapshot of a vulnerable population

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Background: in 2023, over 40% of new HIV diagnoses in the EU/EEA were among migrants, with 58% of Sub-Saharan Africa (SSA) migrants diagnosed late (CD4+ less than 350 cells/mL). In our region there is a large presence of SSA immigrants, with a majority being women. However, available data regarding this specific population are scarce.

Methods: a multicenter cross-sectional observational study was conducted to describe the demographic, social, economic, viral, immunologic characteristics, co-infections and comorbidities of women living with HIV (WLWH) from SSA who were receiving care at 10 Infectious Diseases (ID) Centers in the North-East of Italy during 2020.

Results: we included 454 WLWH, coming from Nigeria (212), Ghana (64), Ivory Coast (41) Cameroon (38), and from 30 other SSA states. Demographics, clinical and social characteristics are reported in Table 1. The median age at diagnosis was 29 years old [IQR 25;34.5]; 33 (7.3%) were diagnosed with HIV before arriving in Italy. Most reported infection through heterosexual contact (86.3%). At diagnosis, median CD4+ cell count was 244 cell/mL [IQR 133.2;372.2]; late diagnosis was recorded in 277 (71%) women. 428 (99.1%) women were receiving antiretroviral therapy (ART); 78.9% and 15.7% of them were on triple therapy (34% INI, 16.8% PI, 28.3% NNRTI), and on dual therapy (DTG+RPV, XTC + DTG or XTC + PI/b), respectively. 236 women (78.2%) were virologically suppressed, 27 (9%) had low level viremia (< 200 copies/uL), and 38 (12.6%) had virological failure/viral blip. No significant associations were identified between virological failure and social, clinical, or viro-immunological variables.

Conclusions: over 99% of SSA WLWH in care at our ID centers received ART, but only 78.2% were virologically suppressed. Unstable socioeconomic conditions, language barriers, and lack of education likely contributed to poor ART adherence. In addition, a significant number of women were diagnosed with HIV after arriving in Italy, underscoring the need for targeted HIV prevention and testing programs to prevent late HIV diagnoses, which are significantly higher among migrant women in our cohort compared to those in other European countries.

Age at HIV diagnosis	Med [IQR]	29 [25; 34.5]
Education, n (%)	Yes	240 (52.9)
	No	34 (7.5%)
	Unknown	180 (39.6)
Bureaucratic civil status, n (%)	Italian citizenship	19 (4.2)
	Long term residence permit	231 (50.9)
	Short term residence permit	27 (5.9)
	Refugee	8 (1.8)
	Undocumented	16 (3.5)
	Unknown	153 (33.7)
Marital status, n (%)	Pluripartner	7 (1.5)
	Stable relationship	224 (49.3)
	Single	71 (15.6)
	Unknown	152 (33.5)
Employment, n (%)	Occasionally employed	35 (7.7)
	Fully employed	104 (22.9)
	Unemployed	76 (16.7)
	Unknown	239 (52.6)
HIV risk factor, n (%)	Heterosexual contact	392 (86.3)
	Mother to child transmission	3 (0.7)
	Blood transfusion	3 (0.7)
	Intravenous drug use	1 (0.2)
	Unknown	55 (12.1)
Time of diagnosis, n (%)	Before arrival in Italy	33 (7.3)
CD4 nadir, cell/mmc	Med [IQR]	244 [133.2-372.2]
CD4 nadir, cell/mmc	0-199	156 (40)
	200-349	121 (31)
	350-499	73 (18.7)
	>=500	40 (10.3)
HCV coinfection, n(%)	Yes	7 (1.5)
HBV coinfection, n(%)	HbcAb isolated	54 (11.9)
	HbsAg positive	29 (6.4)
	Natural immunity	136 (30)
	Negative	203 (44.7)
	Unknown	32 (7)
M. tuberculosis infection, n (%)	Latent	24 (5.3)
	Active, treated	30 (6.6)
	Negative	237 (52.2)
	Unknown	163 (35.9)
Syphilis, n (%)	Yes	20 (4.4)
Diabetes, n (%)	Yes	49 (10.8)
Hypertension, n (%)	Yes	142 (31.3)
Dyslipidemia, n (%)	Yes	101 (22.2)
Oncological diseases, n (%)	Yes	36 (7.9)

Table 1. Characteristics, co-infections and comorbidities of migrant WLWH in care at our ID Centers