

Demographic and clinical characteristics of mpox among people living with HIV/AIDS (PLWHA) during the 2022 outbreak in Brazil: an observational study

Pascom AR^a, Dias GB^a, Souza IMCD^a, Oliveira RSM^a, Pereira GFM^a, Ferreira ACG^a, Miranda AE^a

(a) Ministry of Health, Secretariat of Health Surveillance, Department of Surveillance, Prevention and Control of Sexually Transmitted Infections, HIV/AIDS and Viral Hepatitis. Brasília-DF, Brazil

INTRODUCTION

The new mpox outbreak extending worldwide is mostly affecting gays and other men who have sex with men, and people living with HIV/AIDS (PLWHA). There are limited data on mpox and PLWHA.

This study aims to describe and compare the demographic and clinical characteristics of mpox cases according to HIV/AIDS status in Brazil.

METHODS

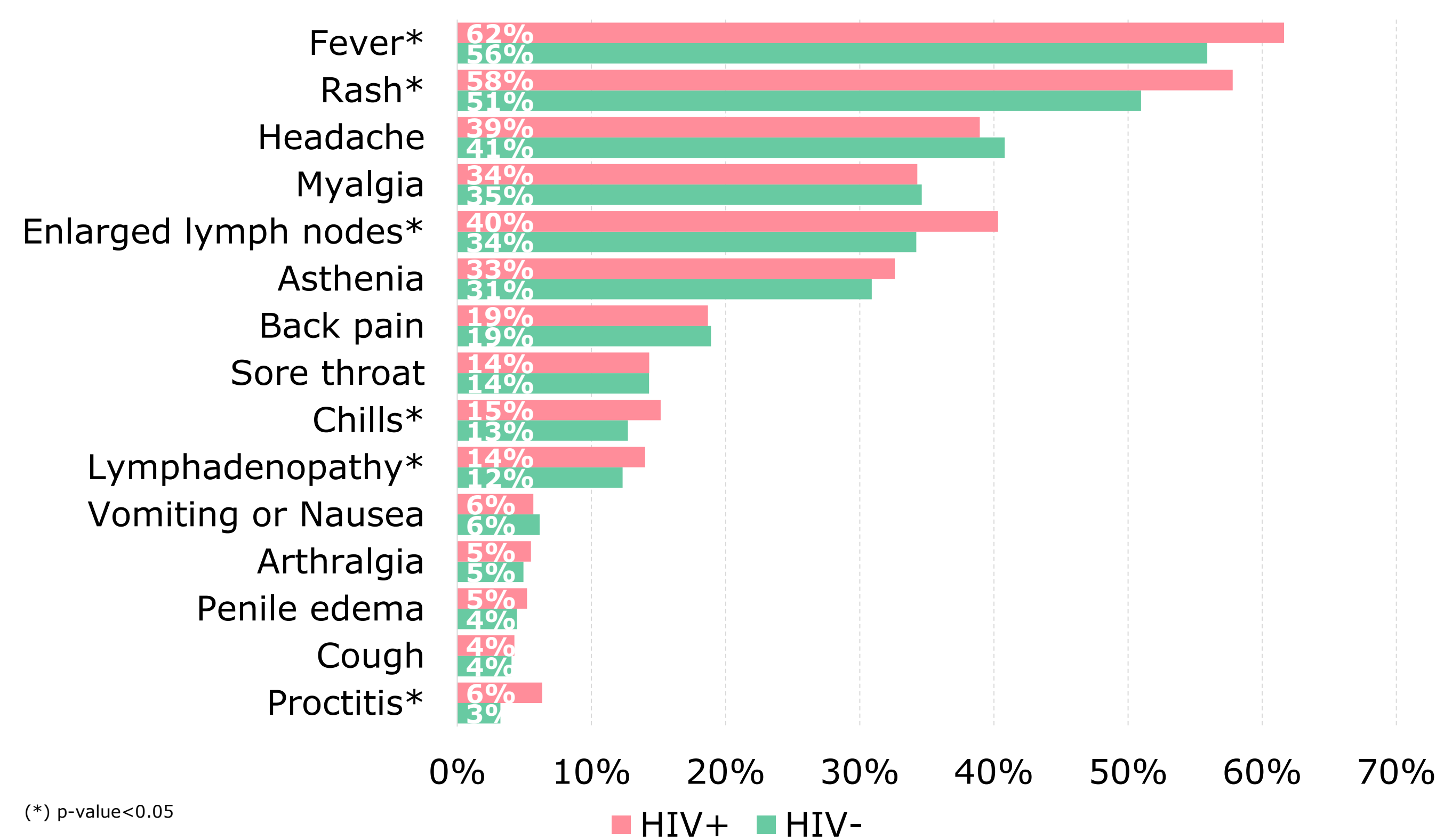
We conducted a cross-sectional study using data obtained from the mpox and HIV/AIDS MoH national databases in Brazil. We included confirmed and probable mpox case aged 15 and over reported to the MoH systems between June 7th and December 31st, 2022, according to the case definition adopted in the country. Descriptive statistics and Chi-square tests were used to compare sociodemographic and clinical characteristics for PLWHA, and HIV-negative people or unknown status (HIV-).

Table 1: Sociodemographic and clinical characteristics for PLWHA and HIV negative people or unknown status (HIV-). Brazil, 2022

Characteristics		HIV- N (%)	HIV+ N (%)	Total N (%)
Total		5389 (100%)	4657 (100%)	10046 (100%)
Sex at birth	Male	4673 (86,7%)	4598 (98,7%)	9271 (92,3%)
	Female	700 (13%)	53 (1,1%)	753 (7,5%)
	NA	16 (0,3%)	6 (0,1%)	22 (0,2%)
Age	Md (Q1-Q3)	31 (26-38)	34 (29-39)	32 (27-38)
	15-17	100 (1,9%)	1 (0%)	101 (1%)
	18-29	2261 (42%)	1341 (28,8%)	3602 (35,9%)
	30-39	1905 (35,3%)	2215 (47,6%)	4120 (41%)
	40-49	817 (15,2%)	889 (19,1%)	1706 (17%)
	50-59	212 (3,9%)	189 (4,1%)	401 (4%)
	60+	94 (1,7%)	22 (0,5%)	116 (1,2%)
Gender	Cis male	3615 (67,8%)	3620 (78,5%)	7235 (72,8%)
	Cis female	589 (11,1%)	48 (1%)	637 (6,4%)
	Trans women or transvestites	21 (0,4%)	32 (0,7%)	53 (0,5%)
	Trans men	76 (1,4%)	71 (1,5%)	147 (1,5%)
	Non-binary	46 (0,9%)	31 (0,7%)	77 (0,8%)
Missing/NA		981 (18,4%)	808 (17,5%)	1789 (18%)
Race/skin color	White/Asian	2213 (41,1%)	1849 (39,7%)	4062 (40,4%)
	Black	1963 (36,4%)	1923 (41,3%)	3886 (38,7%)
	Indigenous	8 (0,1%)	8 (0,2%)	16 (0,2%)
	Missing/NA	1205 (22,4%)	877 (18,8%)	2082 (20,7%)
Men who have sex with men**	No	828 (16,1%)	185 (4%)	1013 (10,3%)
	Yes	3024 (58,8%)	3232 (69,5%)	6256 (63,9%)
	Missing/NA	1295 (25,2%)	1231 (26,5%)	2526 (25,8%)
Any STI	Syphilis	165 (3,1%)	416 (8,9%)	581 (5,8%)
	Genital herpes	108 (2%)	138 (3%)	246 (2,4%)
	Chlamydia	17 (0,3%)	27 (0,6%)	44 (0,4%)
	Gonorrhoea	22 (0,4%)	20 (0,4%)	42 (0,4%)
	Genital warts	21 (0,4%)	18 (0,4%)	39 (0,4%)
	Other	39 (0,7%)	91 (2%)	130 (1,3%)
	None	2227 (41,3%)	1613 (34,6%)	3840 (38,2%)
NA		2790 (51,8%)	2334 (50,1%)	5124 (51%)
Hospitalization	No	4263 (79,1%)	3756 (80,7%)	8019 (79,8%)
	Yes	243 (4,5%)	246 (5,3%)	489 (4,9%)
	Missing/NA	883 (16,4%)	655 (14,1%)	1538 (15,3%)

Notes: (*) Only those assigned as male at birth were included in this analysis. Individuals assigned as male at birth who reported sex only with other men or with men and women were considered MSM.

Figure 1: Self-reported signs and symptoms among PLWHA and HIV negative people or unknown status (HIV-). Brazil, 2022



RESULTS

As of December 2022, 10,046 confirmed and probable mpox cases were included in this study, out of those 46% (4,657) were HIV positive. The median age was 32 (IQR:27-38), 73% (7,235) were cisgender males, and 64% were gays and other men who have sex with men (MSM). Among those PLWHA, the median age was slightly higher (34yo, IQR:29-38), 79% (3,620) were cisgender male, and 70% (3,232) were MSM. STIs were more frequent among PLWHA (n=710; 15%) than HIV- people (n=372; 7%) (p-value<0.001); 9% (416) PLWHA were diagnosed with syphilis at mpox notification, and 3% (165) among HIV- cases. Signs and symptoms were also significantly more prevalent among PLWHA: 93% presented at least one sign or symptom, and 58% presented rashes; among HIV- cases proportions were 90% and 51%, respectively. 5.3% (246) PLWHA and 4.5% (243) HIV- or unknown-status cases were hospitalized. Twelve deaths due to mpox and 13 due to other causes were registered; 11 and five, respectively, among PLWHA.

CONCLUSION/DISCUSSION

This study has shown a high frequency of HIV/AIDS among mpox cases reported in Brazil. PLWHA had more STIs, signs and symptoms, complications, hospitalization, and deaths. These results highlight the importance of reorganizing health services and investing in professional capacity building to face the mpox outbreak, especially in HIV/AIDS and other STI services. Furthermore, it reinforces the need to plan prevention strategies, including vaccination against mpox, specifically targeted at this population.

