Ocular Syphilis Among People Living With HIV in Mexico City: Prevalence and Clinical Profile

1015

CROI 2026

Karen Juárez-Campos[1], Paola Alarcón-Murra[1], Iñaki Salgado-Rodríguez[1], Yanink Caro-Vega[1] , Juan Sierra-Madero[1], Obed Ocampo-Valdez[1], Alvaro López-Iñiguez[1], Brenda. Crabtree-Ramírez[1],**Hector Rivera-Villegas**[1]
1. HIV Clinic, Instituto Nacional de Ciencias Médicas y Nutrición "Salvador Zubirán" (INCMNSZ), Mexico City, Mexico

BACKGROUND

- Ocular syphilis (OS) is part of the neurosyphilis spectrum and is more frequent among people with HIV (PWH).
- Reported OS prevalence in PWH is low (0.5–1.5%), and clinical presentation varies.
- Data on OS among PWH in Latin America remain limited.

OBJECTIVE

- Describe OS prevalence and clinical profile among PWH with syphilis in a Mexico City cohort (2021–2025).

METHODS

- Retrospective cohort at an HIV clinic in Mexico City (Mar 2021–Jul 2025).
- Included PWH with syphilis diagnosis (reactive serum VDRL).
- Clinical, laboratory, and virologic data were extracted from medical records.
- Ocular syphilis: reactive serum VDRL plus ophthalmologic confirmation.
- Virologic failure (VF): HIV RNA >200 copies/mL.
- Compared OS vs non-OS using nonparametric tests and χ^2/Fisher, as appropriate.

About 1 in 20 people with syphilis developed ocular involvement. Higher syphilis titers may help identify individuals at risk for eye complications.

RESULTS

Between 2021 and 2024, 529 cases of syphilis were identified among PWH in our cohort; 25 (4.7%) met criteria for ocular syphilis (OS). Optic neuritis was the most frequent presentation (28%), followed by posterior uveitis (16%). All cases were ophthalmologically confirmed.All OS cases occurred in men.

Among the 18 (72%) patients who underwent CSF VDRL testing, 12% were reactive, fulfilling diagnostic criteria for neurosyphilis; 8% had otosyphilis. Most patients (80%) received IV penicillin and 12% IV ceftriaxone.

Age, CD4 count, duration of HIV infection, and syphilis reinfection rates were similar between groups.

Table 1. Baseline characteristics of PWH with syphilis, stratified by ocular involvement

Variable	No-OS (n=507)	OS (n=25)	p-value
Age, years	43.5 (36.0–51.9)	43.8 (34.0–50.5)	0.58
Years living with HIV	10.9 (6.0–16.9)	8.8 (6.8–17.1)	0.79
CD4 count, cells/mm³	564 (377–775)	544 (297–732)	0.57
HIV RNA, copies/mL	40 (20–40)	40 (26–4556)	0.08
VDRL titer at diagnosis	1:16 (1:4–1:32)	1:128 (1:32–1:128)	<0.001
Virologic failure	9.1%	24.0%	0.035
Syphilis reinfection	51.1%	60.0%	0.51
MSM	81.9%	90.9%	0.40
Any drug use	19.7%	28.0%	0.45

Data are presented as median (IQR) or n (%). Comparisons were performed using Wilcoxon rank-sum test for continuous variables and χ^2 or Fisher's exact test for categorical variables, as appropriate. OS, ocular syphilis; PWH, people with HIV; MSM, men who have sex with men.

Figure 1. Virologic failure (HIV RNA >200 copies/mL) by ocular involvement

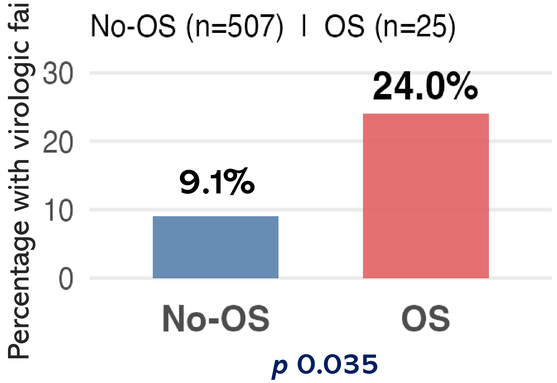


Figure 2. VDRL titers at diagnosis by ocular involvement

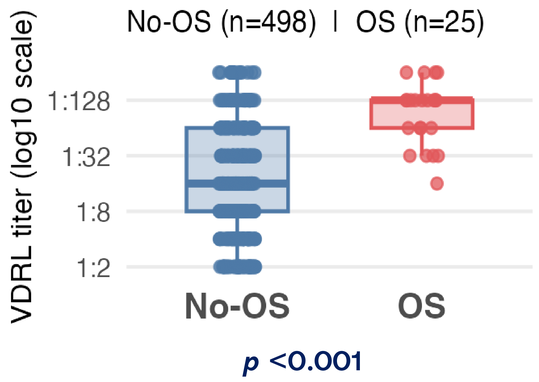
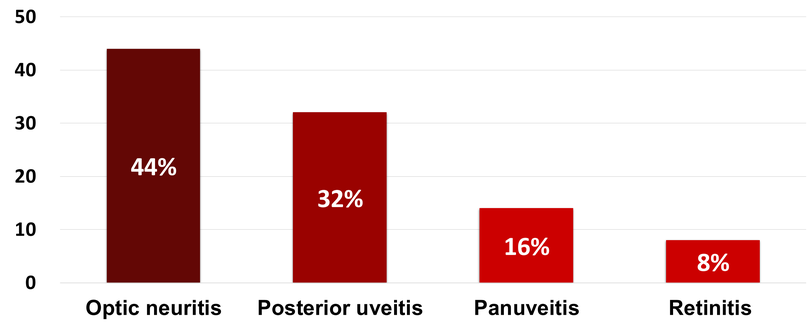


Figure 3. Clinical manifestations of ocular syphilis (n=25)



Ocular syphilis clustered among patients with high VDRL titers and suboptimal HIV control.

CONCLUSIONS

- Ocular syphilis represented ~5% of all syphilis cases among PWH in our cohort.
- Optic neuritis was the most frequent clinical presentation.
- Higher VDRL titers were observed among patients with ocular involvement.

REFERENCES
1. Quiroz R, Smit D, Peters R, Vasconcelos-Santos D. Double Trouble: Challenges in the Diagnosis and Management of Ocular Syphilis in HIV-infected Individuals. cul Immunol Inflamm. 2020 Oct 2;28(7):1040-1048. doi: 10.1080/09273948.2020.1772839. Epub 2020 Jul 13. PMID: 32657637.
2. Tuddenham S, Ghanem KG. Management of Adult Syphilis: Key Questions to Inform the 2021 Centers for Disease Control and Prevention Sexually Transmitted Infections Treatment Guidelines. Clin Infect Dis. 2022 Apr 13;74(Suppl_2):S127-S133. doi: 10.1093/cid/ciac060.

Contact: *hector.riverav@incmnsz.mx*