

OBSERVATIONS: BRIEF RESEARCH REPORTS

Detection of Monkeypox Virus in Anorectal Swabs From Asymptomatic Men Who Have Sex With Men in a Sexually Transmitted Infection Screening Program in Paris, France

Background: A monkeypox virus (MPXV) outbreak emerged in May 2022, affecting mostly men who have sex with men (MSM). Although most infections were characterized by cutaneous lesions, a recent report described 3 asymptomatic men with no cutaneous lesions but with positive results on anorectal MPXV polymerase chain reaction (PCR) testing (1). Determining whether MPXV infection can be asymptomatic may better inform epidemic management.

Objective: To assess the presence of MPXV in anorectal samples among asymptomatic MSM routinely tested for bacterial sexually transmitted infections (2).

Methods and Findings: We retrospectively performed testing for MPXV on all anorectal swabs that were collected in our center as part of a screening program for *Neisseria gonorrhoeae* and *Chlamydia trachomatis*. Per French guidelines, this screening is performed every 3 months among MSM with multiple sexual partners who are either taking HIV preexposure prophylaxis (PrEP) or living with HIV and receiving antiretroviral treatment (2). Patients could have urine samples and anal swabs collected at our clinic or a private laboratory. After the first case of MPXV infection was identified in France on 19 May 2022, screening was halted in patients who had lesions suspicious for MPXV (3). We report on asymptomatic MSM who tested negative for *N gonorrhoeae* and *C trachomatis* on MPXV anal swabs collected at the Infectious Disease Department and the Sexual Health Clinic of Bichat-Claude Bernard Hospital in Paris, France, from 5 June to 11 July 2022. All participants attended a clinical visit on the day of sampling as part of routine PrEP or HIV treatment follow-up. Participants gave written informed consent to have their data recorded in Nadis (www.dataids.org; Fedialis Medica, CNIL number 1171457 [24 May 2006]), an electronic medical record designed for follow-up of persons living with HIV or receiving HIV PrEP and use of their data for research. The local review board did not require specific consent to use remnant routine biological samples in the setting of the MPXV epidemic.

After heat inactivation (12 minutes at 70°C), nucleic acids were extracted using a STARMag 96 X 4 Universal Cartridge Kit (Seegene) on the MICROLAB NIMBUS system (Seegene).

MPXV-specific PCR was performed using a previously published protocol (4).

During the study period, 706 MSM visited our clinic, 383 had symptoms suggestive of MPXV infection (40% had anal lesions), and MPXV infection was confirmed in 271 of those with symptoms (Table). Screening for *C trachomatis* and *N gonorrhoeae* infection was not performed when MPXV infection was suspected because of laboratory biosafety restrictions (5). Of the 706 MSM, 323 had no MPXV symptoms, and 213 had anal swabs collected and were negative for *C trachomatis* and *N gonorrhoeae* (Table). Among these 213 MSM, the median age was 38 years (IQR, 29 to 48 years), and 110 (52%) were living with HIV and receiving antiretroviral therapy, with a median of 9 years (IQR, 4 to 18 years) since diagnosis. Among those with HIV, 78% had undetectable viral load (median viral load was 74 copies/mL [IQR, 37 to 2270 copies/mL] in the others), and the median last CD4 T-cell count was 0.766×10^9 cells/L (IQR, 0.560 to 1.001×10^9 cells/L).

MPXV PCR was successfully performed on 200 of 213 anal swabs and was positive in 13 (6.5%). Of those testing positive, 8 were living with HIV; all had undetectable HIV-1 viral load, and all had a CD4 T-cell count above 0.500×10^9 cells/L, except 1 who had a CD4 T-cell count of 0.123×10^9 cells/L. We contacted all 13 MPXV-positive participants who were initially asymptomatic to assess symptom status and advised them to limit sexual activity for 21 days after the test date and to notify their recent sexual partners. None reported symptoms suggestive of MPXV infection, but 2 subsequently presented to our clinic with symptoms. One had a cycle threshold (Ct) value of 20.7 on PCR of the sample taken during the asymptomatic stage and a Ct value of 33.0 seven days later, when he presented with anal rash. The other presented with pharyngitis and fever but no anal symptoms; PCR on the anal swab taken during the asymptomatic phase showed a Ct value of 38.2, and PCR on a pharyngeal swab 9 days later showed a Ct value of 24.

Of the 187 asymptomatic participants who tested negative for MPXV, 3 presented to our clinic more than 3 weeks after the initial MPXV-negative anal swab with symptoms suggestive of MPXV infection and tested positive.

Discussion: This report documents positive MPXV PCR results from anal samples in asymptomatic MSM. Whether this indicates viral shedding that can lead to transmission is unknown. If so, the practice of ring postexposure vaccination around symptomatic persons with probable or confirmed MPXV infection may not be sufficient to contain spread. Recent French recommendations have advised vaccination for all MSM with multiple partners (5).

Table. Screening for Sexually Transmitted Infections and MPXV Infection in 706 MSM Visiting the Sexual Health Clinic Between 5 June and 11 July 2022

Variable	MSM With No Symptoms of MPXV Infection	MSM With Symptoms Suggesting MPXV Infection
Total number of MSM visiting between 5 June and 11 July 2022	323	383
<i>C trachomatis</i> infections detected on anal swab, n/N (%)	32/323 (9.9)	Not tested
<i>N gonorrhoeae</i> infections detected on anal swab, n/N (%)	24/323 (7.4)	Not tested
<i>C trachomatis</i> and <i>N gonorrhoeae</i> co-infection detected on anal swab, n/N (%)	8/323 (2.5)	Not tested
<i>C trachomatis</i> infections detected on first-void urine sample or urethral swab, n/N (%)	6/323 (1.9)	Not tested
<i>N gonorrhoeae</i> infections detected on first-void urine sample or urethral swab, n/N (%)	3/323 (0.9)	Not tested
<i>C trachomatis</i> and <i>N gonorrhoeae</i> co-infection detected on first-void urine sample or urethral swab, n/N (%)	1/323 (0.3)	Not tested
MPXV-positive test result, n/N (%)	13/200* (6.5)	271/383 (71)

C trachomatis = *Chlamydia trachomatis*; MPXV = monkeypox virus; MSM = men who have sex with men; *N gonorrhoeae* = *Neisseria gonorrhoeae*.
* All 200 of the asymptomatic participants who were tested for MPXV were negative for both *C trachomatis* and *N gonorrhoeae* on anal swab.

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See Also: Editorial comment.

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