Notes from the Field

Posttreatment Lesions After Tecovirimat Treatment for Mpox — New York City, August–September 2022

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Monkeypox virus is an orthopoxvirus that can cause substantial morbidity due to skin and mucosal lesions (*1*). During the 2022 multinational Monkeypox (mpox) outbreak, tecovirimat, an antiviral medication approved for the treatment of smallpox, was used as an investigational treatment for severe mpox. However, efficacy and optimal treatment duration are still being investigated (*1*,*2*). In a late 2022 assessment of the use of tecovirimat for treatment of mpox under the expanded access Investigational New Drug protocol, three patients were found to have developed new lesions after completing treatment (*3*). This report describes a series of patients in New York City (NYC) with mpox who also developed new lesions after completing tecovirimat treatment, suggesting that posttreatment lesions might occur more commonly than previously reported.

A case of posttreatment mpox lesions was defined as the occurrence of new skin or mucosal lesions in an NYC resident with probable or confirmed mpox (*4*), emerging ≤30 days after completing the recommended 14-day tecovirimat treatment course, after improvement or resolution of initial mpox lesions. During August–September 2022, health care providers voluntarily reported 10 such cases to the NYC Department of Health and Mental Hygiene (DOHMH). Providers were asked to complete a survey detailing patient demographic and clinical characteristics and illness course. Descriptive analyses were performed on the nine surveys submitted.

The median patient age was 33 years (range = 23–46 years); eight were men, and one was a transgender woman (Table). Among eight patients with race reported, four were Black or African American, and four were White. Two patients reported Hispanic or Latino ethnicity. HIV status was known for all nine patients. Five had HIV, including four who were taking antiretrovirals at the time of mpox diagnosis (CD4 count >350 cells/mm^3 and viral load <200 copies/mL), and one who was not taking antiretrovirals (CD4 count <200 cells/mm^3 and viral load unknown).

No patient received JYNNEOS vaccine* before experiencing mpox. Initial lesions tested positive for *Orthopoxvirus* using polymerase chain reaction testing. The median initial symptom severity score was 8 out of a possible 23 points (range = 6–13), assessed using the mpox severity score†. Six patients were tested for sexually transmitted infections (STIs) at the time of mpox diagnosis; one received a positive gonorrhea test result and was treated.§

The median interval from mpox symptom onset to tecovirimat initiation was 9 days (range = 6–16 days). All patients received outpatient treatment from their health care provider with weight-appropriate oral dosing of tecovirimat, and all completed the recommended 14-day course with self-reported full adherence. No patient reported an adverse reaction, and providers assessed all patients' mpox lesions as improved after treatment completion.

New lesions appeared a median of 13 days after completion of tecovirimat treatment (range = 2–30 days). In eight patients, posttreatment lesions were rated by the provider to be less severe than initial lesions (median severity score = 3 [range = 3–7]). Among six patients for whom orthopoxvirus testing of posttreatment lesions was conducted, one received a positive result. Two patients received repeat STI testing; one received a positive syphilis test result. The immunocompromised patient with untreated HIV received both the positive posttreatment orthopoxvirus and the positive syphilis test results.¶ Tecovirimat was restarted for two patients (one treated for 7 additional days and one treated for 14 additional days), both of whom had resolution of their lesions. Among the seven patients who did not receive a second course of tecovirimat, six had resolution of lesions, and one was lost to follow-up.

The findings in this report are subject to at least three limitations. First, because active surveillance for posttreatment lesions was not conducted, the number of cases reported here likely represents an underestimate of the actual prevalence. Second, not all posttreatment lesions were tested for *Orthopoxvirus* or other potential etiologies. Finally, analyses relied on provider-reported data, which can be subjective.

Further research is needed to understand the etiology of new lesions in patients with mpox after completion of tecovirimat therapy. One possibility is that *Monkeypox virus*,

* https://www.fda.gov/vaccines-blood-biologics/jynneos

† Mpox severity score was developed by researchers at Columbia University, Cornell University, University of North Carolina, and CDC. Scores can range from 0 to 23. For this report, authors calculated each patient's severity score on the basis of provider survey responses. https://mpoxseverityscore.com/

§ STI testing included gonorrhea and chlamydia (six patients), syphilis (four patients), and herpes simplex virus (one patient).

¶ Posttreatment lesions were treated with 14 days of additional tecovirimat with eventual lesion resolution. Patient received a diagnosis of suspected secondary syphilis and received a positive rapid plasma regain (RPR) blood test result; previous RPR test results were negative. Syphilis treatment was initiated after lesions resolved.

TABLE. Summary of demographic information, clinical features, and outcomes among nine adults with posttreatment lesions after completing tecovirimat treatment for mpox* (N = 9) — New York City, August–September 2022

Characteristic	No. (%)
Total no. of cases	**9 (100)**
Median age, yrs (range)	33 (23 to 46)
Gender	
Man	8 (89)
Transgender woman	1 (11)
Race	
Black or African American	4 (44)
White	4 (44)
Unknown	1 (11)
Ethnicity	
Hispanic or Latino	2 (22)
Not Hispanic or Latino	6 (67)
Unknown	1 (11)
HIV-positive patients	**5 (56)**
Receiving ART at time of mpox diagnosis†	4 (80)§
Not receiving ART at time of mpox diagnosis¶	1 (20)§
Reasons for tecovirimat initiation**	
Proctitis	5 (56)
HIV	3 (33)
Facial lesions	1 (11)
Oral lesions	2 (22)
Urethral lesions	2 (22)
Rectal pain	1 (11)
Dysphagia	1 (11)
Result of treatment with initial tecovirimat course	
Worsening lesions	0 (—)
No change in lesions	0 (—)
Mild improvement of lesions	1 (11)
Significant improvement of lesions	3 (33)
Complete resolution of lesions	5 (56)
Difference between initial and posttreatment lesion severity score, median (range)	−4 (−10 to 1)
Outcome of posttreatment lesions, by treatment	
Tecovirimat treatment given (n = 2)††	
Lesions resolved	2 (100)
Additional lesions did not resolve	0 (—)
No additional tecovirimat treatment given (n = 7)	
Lesions resolved	6 (86)
Lesions did not resolve	0 (—)
Lost to follow-up	1 (14)

Abbreviation: ART = antiretroviral therapy.
* Reported to the New York City Department of Health and Mental Hygiene.
† These patients had CD4 count >350 cells/mm^3 and viral load <200 copies/mL.
§ Percentage of HIV-positive patients.
¶ This patient was immunocompromised (CD4 <200 cells/mm^3).
** Providers could report multiple reasons.
†† One patient was treated with tecovirimat for an additional 7 days, and the other was treated for an additional 14 days.

like other viruses (e.g., SARS-CoV-2), can recur (*5*), but the recurrent viral load might be too low for test detection. Immunocompetent patients might not require additional tecovirimat, because most posttreatment lesions in this analysis resolved without further treatment. However, the clinical course in immunocompromised patients might be more complicated. The proportions of patients not tested for STIs, at initial mpox diagnosis and at the assessment of posttreatment lesions, represent missed opportunities to identify potential coinfections or alternative diagnoses.

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