Expert Interviews

National STD Curriculum Podcast

Monkeypox: Dr. Jason Zucker Discusses Clinical Experience and Counseling in NYC

September 15, 2022

Season 3, Episode 1

In this episode we interview Dr. Jason Zucker, an infectious disease physician and assistant professor of medicine at Columbia University Irving Medical Center. We focus on topics of clinical manifestations and counseling of patients in the 2022 Monkeypox outbreak.

Topics:

- Monkeypox
- MPX
- tecovirmat

Jason E. Zucker, MD
Assistant Professor of Medicine
Columbia University Irving Medical Center
Assistant Medical Director
New York City STD Prevention Training Center

Disclosures

Disclosures for Jason E. Zucker, MD
None

Meena S. Ramchandani, MD, MPH
Associate Editor
Associate Professor of Medicine
Division of Allergy and Infectious Diseases
University of Washington

Disclosures
Disclosures for Meena S. Ramchandani, MD, MPH
Consulting Fee: Innoviva Specialty Therapeutics

Transcript

Read along with the audio or jump to a particular chapter.

In this episode:

[00:00] Introduction
Hello everyone. My name is Meena Ramchandani. I'm an infectious disease physician at the University of Washington in Seattle. This podcast is dedicated to an STD [sexually transmitted disease] review for healthcare professionals who are interested in remaining up to date on the diagnosis, management, and prevention of STDs.

A very warm welcome to our audience. This episode is part of a monkeypox podcast series focusing on the 2022 outbreak. And so, in this episode, we're going to discuss some of the clinical manifestations and counseling of patients in the current outbreak. I'd like to introduce Dr. Jason Zucker. Dr. Zucker is an infectious disease physician, an assistant professor of medicine at Columbia University Irving Medical Center, as well as an assistant medical director of the New York City STD Prevention Training Center. He has a wealth of experience seeing patients with monkeypox, and we're very grateful to have him here with us today. Jason, welcome, and thank you for being here.

Dr. Zucker
Thanks, Meena. Happy to be here.

[01:02] Epidemiology

Dr. Ramchandani
So there has been a multinational outbreak of monkeypox virus infection in 2022. The first case in the U.S. was reported on May 17th. But as of August 24th, there have been over 15,000 cases of monkeypox virus infection in the U.S. and over 44,000 cases worldwide. Jason, tell us a little bit about what you're seeing in New York City with regards to monkeypox infections. When was the first case reported, and are the number of cases continuing to rise?

Dr. Zucker
So, New York City gets to be the start of every epidemic, which is lucky for us because it means we get to be able to provide information to other people. Our first case was in early June, and the first case we had here at the hospital I work at was in mid-June. And so we've had cases steadily increasing since then. Cases finally started to decrease about the beginning of this month [August], and we're just starting to really see and feel that decrease now. And so while we're decreasing here in New York City, I know that in other places, they're really starting to see their increase right now.

[01:58] Dr. Ramchandani
You know, that's really interesting. We might actually be seeing a decrease in cases here in Seattle and King County as well. But it might be just too early to tell. What do you think is the reason why the number of confirmed cases are decreasing in New York City?

Dr. Zucker
I think, like everything, it's multifactorial. I think a lot of the susceptible individuals were previously infected and may now be immune to at least getting it for now. New York City also rolled out an aggressive vaccination campaign, vaccinating those individuals at highest risk of acquiring human monkeypox virus. And I think that helps as well. And I think there's been a lot of advocacy in the community for individuals to reduce their personal risk, and I think that contributes as well. I think all three of those things have really led to the large decrease we're seeing over the past month.

[02:43] Symptoms

Dr. Ramchandani
I'm hearing similar thoughts from other colleagues. You know, we don't have too much information on the efficacy of a vaccine, especially in the current 2022 outbreak. But I do really look forward to seeing more data once published, well, to see if basically decreasing cases is any way a positive outcome of vaccine distribution. So, now let's dive into some of the symptoms of monkeypox virus infection. What are the typical symptoms, and how are you seeing patients present in your clinic?

Dr. Zucker
So we are seeing patients present with a classic prodrome of fevers, muscle aches, fatigue, lymphadenopathy, followed by rash, which is what we've always thought about for human monkeypox virus. However, we're also seeing a lot of the symptoms that are not classic but are typical for this outbreak. Things like oropharyngeal lesions, genital lesions, and proctitis with tenesmus. I would say that the vast majority of our patients during this outbreak have presented with one of those three symptoms, in addition to the rash and other prodromal symptoms.

[03:49] Dr. Ramchandani
You know, we're seeing the similar presentation in our sexual health clinic. Most patients, they're presenting with new skin lesions plus or minus those prodromal symptoms. We've actually had a few patients who present with rectal pain or itching and then a few days later might develop lesions in that area. There's also been a few patients who are presenting with a single genital ulcer and have been misdiagnosed at other clinics due to, like, the thought that it might be general HSV [herpes simplex virus] or primary syphilis, and a couple of patients who have presented with a widespread macular, papular rash, which is unusual. What are the unusual clinical manifestations that you're seeing, maybe some that haven't been typically described in the literature?

Dr. Zucker
Definitely, we've seen a lot of really unusual clinical manifestations over the course of this outbreak. You know, I'll pick just two that really stand out in my mind. One are urethral ulcers. So patients where you can actually see the ulcers in the meatal opening, presenting with extreme dysuria. The other one was a patient who presented with perichondritis after what we presume was a direct inoculation of human monkeypox virus to the ear tissue. I think those are two of the ones that stand out in my mind, but we have seen a lot of unusual symptoms over the course of this outbreak.

[04:56] Treatment

Dr. Ramchandani
Those are unusual, and that's good to know—something to watch out for clinically when patients might present with these symptoms. I haven't yet heard of a case of perichondritis, and just for our audience, that's an infection of the tissue lining the ear cartilage, and I can just imagine that's quite rare. So tell us, Jason, what are the antiviral treatments available for monkeypox? I'm assuming you're treating cases and especially those with severe infection.

Dr. Zucker
So there's really three different antivirals available for human monkeypox virus. You know, there's cidofovir and brincidofovir, which we've used for CMV [cytomegalovirus] before. Cidofovir is very nephrotoxic and is not really being recommended during this outbreak. Brincidofovir is also available only from the Strategic National Stockpile and through an IND [Investigational New Drug] process, and also has not been recommended during this outbreak because of some early data with a very small number of cases showing possible hepatic injury. So, primarily during this outbreak, we've been using tecovirimat, the novel antiviral available from the CDC [Centers for Disease Control and Prevention] and from the Strategic National Stockpile. It's a novel antiviral that was designed for smallpox but targets something pretty unique to orthopox viruses. And so it's expected that it would work here as well. The other treatment I'll mention that we don't talk about enough—but is trifluridine, which are the eyedrops which have been approved and been used for years for HSV treatment, but also can be used for ocular disease in human monkeypox virus.

[06:23] Dr. Ramchandani
Thank you, Jason. So what treatment are you administering, and in what patient scenario would you recommend treatment? Are you recommending treatment for everyone? Are you doing presumptive treatment? Tell us a little bit more about your patients.

Dr. Zucker
Yeah, so we're using a primarily tecovirimat for treatment. We have pretty strict criteria for treatment, keeping in line with the New York City DOH [Department of Health] criteria. That includes patients with severe disease, patients who have complications of disease, and patients who are at risk of severe disease. We're not treating patients with early disease who are not at risk of developing severe disease.

[06:54] Dr. Ramchandani
That's helpful. How are your patients doing with and without treatment, anecdotally? I know that some patients of mine are saying that their symptoms are improving extremely fast, and then those who have, especially proctitis, their symptoms are not resolving as quickly.

Dr. Zucker
I think it's really hard to answer this question in the setting of a known self-limited illness. You know, for the most part, all of our patients treated and not treated have done well. Some of our untreated patients have worsened and required treatment. And some of our untreated patients have just done well and never required treatment. Some of our patients who we've treated have gotten better very quickly, and other ones haven't gotten better very quickly. And, you know, because it's a self-limited disease that has, overall, low mortality, we really need to sort of do a clinical trial to understand what the benefits of this medication are and where in the course of illness it has the most benefit for our patients. We're continuing to follow patients to look and provide support for any long-term sequelae. But, so far, all of our patients treated or untreated have gotten better and done well.

[07:58] Transmission

Dr. Ramchandani
What's your take on the transmission of the virus in the current outbreak, and what do we know so far in terms of transmission?

Dr. Zucker
There's always three ways that are attributed to transmission of this virus. There's direct contact with bodily fluids or infected lesions. There's contaminated fomites like linens and bedsheets. And then there's contact with respiratory secretions. I think it's pretty clear from the epidemiology of this outbreak that direct contact with infected lesions and bodily fluids is the primary driver of this outbreak. You know, I know there's a lot of discussion about whether or not this is or is not an STI [sexually transmitted infection], and I'm trying to stay clear of that debate. But what's clear is that this virus transmits efficiently during a sexual encounter, and that's really a much more efficient way for this virus to transfer than the other methods. We worry about contaminated fomites like linens and bedsheets and contact with respiratory secretions. But, clearly, when you look at the epidemiology, these are not significant drivers of this outbreak.

[08:52] Vaccines

Dr. Ramchandani
Can you tell us a little bit about the vaccine being used to prevent monkeypox virus infection in the U.S.? Is New York City giving second doses yet or prioritizing first doses for individuals at highest risk?

Dr. Zucker
So, the vaccine being used in the United States, the *Jynneos* vaccine, is a live, nonreplicating virus that can be given to anyone, which is one of the advantages of it over the other second-generation smallpox vaccine that's available. New York City has really rolled out an aggressive vaccination campaign, starting with

prioritizing first doses for patients. There are plans, and they've been in discussions about when they're going to start doing second doses, although there's not been a date announced publicly yet.

Dr. Ramchandani
We just started doing second doses here in King County.

[09:36] Dr. Zucker
So, Meena, is it okay if I ask you a question? So, you know, we haven't started doing intradermal yet, but we're planning to start it next week. What have you been seeing in terms of reactions to the intradermal vaccination?

Dr. Ramchandani
That's a great question. We've been providing the intradermal administration for about a week now. And, so for our audience—intradermal administration—it involves injecting the vaccine superficially just between the epidermis and the hypodermis layers of the skin, typically in the forearm. Patients get a little bubble or weal at the site, just like a PPD [purified protein derivative – skin test for tuberculosis]. So, what I do is, I counsel patients. I say, basically, that you're going to get a little erythema, or you might get a little erythema or induration at the site of administration. There can be a little bump, one that maybe lasts for a few weeks, and some patients have said it's pruritic or a little itchy. I also let them know that they can have an area of darkened skin or hyperpigmentation. It's not really a scar. It's just like a little bit of a darker skin than their normal skin color at the site, and this might last for several weeks to months or even longer. For some patients, they can use topical emollients or cold compresses, or oral antihistamines, but just as needed for localized side effects. They don't need to do anything if they don't have any of these side effects, but I have found that most patients do fine with the intradermal administration. Now, one question that does come up is, well, if the patient received the first dose of *Jynneos* subcutaneously, can they get the second dose intradermally, and the answer is "yes." The studies of intradermal administration of vaccines indicate just similar immunogenicity compared with other routes of administration. So, it is helpful to counsel patients on this so they know what to expect.

Dr. Zucker
Yeah, I think that's very helpful for us to be able to provide guidance to our patients.

[11:30] Counseling

Dr. Ramchandani
Yeah, I find it's helpful to talk with patients about what they might experience and counsel them on some of the symptoms. We actually show patients a picture of what the area might look like at different time points, and that helps them get a sense of what they might expect after the vaccine. To tie up today's episode, I'd like to ask you: What is the most frequent question you get about monkeypox, and how do you usually answer the question?

Dr. Zucker
So, the most frequent question I'm getting is about when my patients can have sex again. I think there's a lot of misinformation and differing information out there about when patients can return to sexual activity. And I think part of that's because we don't really have an answer yet. We don't know how this virus is sequestered in different body compartments and whether or not patients are still contagious from different body compartments even after the skin lesions have resolved. You know, the New York City and CDC say you can consider condoms for a minimum of eight weeks after infection. The World Health Organization says consider condoms for a minimum of 12 weeks after recovery. And so I generally present that data to my patients. I explain to them that we don't fully know, but here's what's recommended and letting them make the decision that's best for them.

[12:36] Dr. Ramchandani
How do you counsel patients about isolating if you suspect monkeypox virus infection?

Dr. Zucker
So in terms of isolation, you know, it's really challenging because not all patients have the ability to isolate. And also, patients often have the challenge of living in New York City with roommates or other people. We do tell people that if they can, they should isolate at home. If there are other people around, they should try to avoid being in the same room with them as much as possible. And if they have to be in the same room as them, to cover any lesions, and wear a mask as much as they can. Same sort of guidance we provide them if they have to go out of the house to either pick up necessary medical supplies or to go to the doctor—that they should keep all lesions covered and wear a mask at all times.

Dr. Ramchandani
Jason, thank you so much for joining us today. It's been an absolute pleasure to speak with you on these important topics. And I know our audience will really benefit from this interview. So, thank you.

Dr. Zucker
Thanks for having me.

[13:29] Credits

This podcast is brought to you by the National STD Curriculum, the University of Washington STD Prevention Training Center, and is funded by the Centers for Disease Control and Prevention.

Transcripts and references for this podcast series can be found on our website, the National STD Curriculum, at www.std.uw.edu.

experience-and-counseling-in-nyc