Podcast Transcript

Monkeypox: Symptoms and Treatment

The following transcript has been lightly edited for clarity. Elite Learning does not warrant the accuracy or totality of audio transcriptions provided by an independent contractor resulting from inaudible passages or transcription error. An occasional transcription error may occur.

Guest

Daniel Griffin, MD, PhD, CTropMed, CTH

- Board certified in internal medicine and infectious disease
- Expertise in global health, tropical medicine, parasitology, and virology
- International speaker for organizations such as the University of Glasgow, the University of Minnesota, the Peace Corps, the Foundation for International Medical Relief for Children, Floating Doctors, and Remote Care Education.
- Podcast co-host for *This Week in Virology*, *Infectious Disease Puscast*, and *This Week in Parasitism*
- Co-author, *Parasitic Diseases, 7th edition*

Host

Deborah Martin, DNP, MBA, RN, NE-BC, FACHE

- Director of Learning Innovation, Elite Learning by Colibri Healthcare
- Certified nurse executive and fellow of the American College of Healthcare Executives
- More than 25 years in healthcare, including as system director of professional practice and development at a large healthcare system

Transcript

(SOUNDBITE OF MUSIC)

DR. DANIEL GRIFFIN, GUEST: There's a bit of time, and usually the incubation here is one to two weeks. So that is a little bit of a challenge when you hear about travel bans, things like that, because actually that incubation period, the time from when you're exposed to the time when you potentially have symptoms and become infectious, can actually range all the way out to 21 days to three weeks.

(SOUNDBITE OF MUSIC)

DR. DEBORAH MARTIN, HOST:
Hello and welcome. I'm Dr. Deborah Martin with Elite Learning. Our topic for this podcast is Monkeypox. We've seen the headlines about the disease, and we will be hearing from an expert in infectious diseases, Dr. Daniel Griffin. He is a physician scientist, board certified in internal medicine and infectious diseases with expertise in global health, tropical medicine, parasitology and virology.

He is an active clinician with international speaking engagements and lecturing for multiple organizations He's also one of the co-hosts of two popular podcasts that are recorded on a weekly basis. In addition, he's one of the authors of Parasitic Diseases that is now in its seventh edition, with thousands of copies distributed to over a hundred countries throughout the world. Now, let's hear from Dr. Griffin. And knowing Dr. Griffin, he likes to start with objectives.

GRIFFIN:
Well, we'll thank you again for that introduction. We're now up to three podcasts. We even added another, the infectious disease puscast, which is sort of right in line talk about today, sort of stretching that and talking a bit about things that cause us. So I have five objectives today, five because that's the number of fingers and we're going to run out. But I think that these are really important and very timely. So we're going to be talking today about monkeypox. So, first objective. I want everyone who listens to this at the end to take away the ability to describe the clinical presentation; what should alert the clinician to the possibility that a person might have monkeypox.

And as we have this conversation, I'm hoping people walk away saying, oh, OK, I need to be a little bit broader in what I'm thinking about. Number two, I want everyone to be able to protect themselves and their staff when encountering a suspected case of monkeypox. So we're going to be talking a bit about how things might be transmitted.

I'm going to be talking about it, very plain language. I don't want us to run into any of the the issues with language that really caused a problem for us with the COVID19 pandemic. And number three, now that you've suspected it, I want people to walk away actually feeling comfortable managing a patient with suspected and then possibly later confirmed monkeypox.

Number four, I hope people are going to be able to understand and remember and even recall the available tools, including vaccination and the management of monkeypox outbreaks and not just even managing that one person, but managing this in the context of a public health challenge. And number five, and this is really going to tie up with everything else. I want people to understand the roots of transmission as well as the incubate incubation period and to identify other at risk individuals.

So we've got that person in front of us that we're concerned about. But who else should we be concerned about as well?

MARTIN:
Great. Sounds like we have a good podcast happening here. So thank you, Dr. Griffin, for being with us.

GRIFFIN:
All right. So where should we start? Should we start with the basics, the virology?

MARTIN:
I think the basics is a great place to start.

GRIFFIN:
OK. And I think, I think the basics is important here. You know, we've all been dealing with an RNA virus for quite a while, and now things are about to change. The monkeypox virus that causes the disease makes it easy. The monkeypox virus causes monkeypox. So, a little straightforward here. This is a double stranded DNA virus and it's a memory member of the family poxviridae.

So this is a pox virus. People can actually think, boy, do I know of other pox viruses, chicken pox.

MARTIN:
I was going to say chickenpox. Every time I hear monkeypox, I think about chickenpox and diseases of childhood, you know, and animal association.

GRIFFIN:
And you should. And I think that's a great way. I think one of the problems that we had recently, we won't mention which virus this was about, but think about what we know about those type of viruses. Don't don't think about influenza. Think about chickenpox. Think about the other pox viruses. That's going to really give us a sense of how this presents and how it spreads.

The other thing I think right in there's this is a DNA virus. So when we're going to be doing molecular testing, when we're doing amplification, we're looking for DNA, not RNA. So just think about that. DNA just like us. The other, I think this is really important in the virology and this is going to become important as we go forward.

There's really two distinct clades. Two distinct types of poxviridae of chickenpox [monkeypox] virus here. One is the more virulent the Congo Basin Clade. This is Central African. This has a mortality perhaps as high as 10%. And then there's the West African clade, that which we we have historically seen in Nigeria, gone in that region with historically a lower associated mortality.

So really want to be keeping in mind these really are two somewhat separate types of monkeypox.

MARTIN:
OK, good to know. Why don't we talk a little bit about the history of it? Because I understand it's a fairly new virus.

GRIFFIN:
It really is, actually. And I think the name right. Like let's think about chickenpox. Oh, that's something that affects chickens. No, I think we have a little bit of a challenge here with the name monkeypox, which really tells us a lot about the history of how this was identified. This was first identified in Copenhagen, Denmark, in monkeys in 1958.

And there was actually a colony of research monkeys. These were crab eating macaque monkeys. That's initially where it was identified, but it's a bit of a misnomer because we do not think this is mainly an infection of monkeys. We think the reservoir is mainly rodents, not monkeys. So think of it as rodent pox. Not quite as catchy, but it wasn't until 1970 in the 1970s that we began to identify this in humans and actually hundreds of cases in humans started to be identified after 1970 and, and sort of take this from up above.

Where were those cases? Central and western Africa. And occasionally we've actually had some outbreaks outside of Africa, including here in the United States.

MARTIN:
I read about that. In fact, as I was preparing for this podcast, I read an opinion piece on NPR about the media coverage surrounding monkeypox and how it demonstrates systemic, either implicit or even explicit biases, and that the first outbreak outside of Africa was actually in 2003 in the United States in the Midwest, I would say. And that outbreak resulted in more than 70 cases as you talked about, there were a number of outbreaks.

But even with that, all of the stock photos that we're seeing now that are associated with the headlines are of Black arms. And Black faces. So why is that? And are we associating this disease with a country inappropriately?

GRIFFIN:
Yeah, I think that that's a big challenge, and I have noticed that also. Why, why aren't we seeing stock photos of white Midwesterners with the with the monkeypox lesions? Because, you know, we had 70 of them. We had.

MARTIN:
70.

GRIFFIN:
Of them. Yeah. And so, those lesions are out there. Those people are out there. And I do worry about that. And I think this is a really important comment to make at this point there. You know, this is not like Ebola. This is not something that is restricted to Africa that we're thinking we're going to contain in Africa as we'll talk more and more.

This is a virus that we're realizing has actually left Africa. It's present in Europe. It's present in the United States. If anything, we're beginning to realize we probably did not recognize this for a while. And we'll talk a little bit, hopefully at the end, why we didn't recognize it and hopefully remedy that. But this is not something we're trying to contain in Nigeria.

It's not something we're trying to contain in the Congo or Ghana. It's something that is present in Europe. We're beginning to really confirm the idea that there may have even been a couple introductions historically. It was not just one person coming from Africa introducing it. This is not, I would say, an African disease. This is a disease that may have originated there, but it's actually something that I think as we go forward and we keep identifying, recognizing more and more cases, this is something that people need to see photos of on on White skin, on non-black skin, because if you're only thinking in your head of Black skin with these lesions, you're going to miss cases. You're going to probably keep missing the cases that we're beginning to realize we've been missing for a while. So hopefully we're going to remedy that. You know, this is a podcast, so we won't have pictures of skin to show you, but we'll be talking a bit about what those lesions look like, where to look for those lesions. And they're not just on Black skin.

MARTIN:
Great. Right. Thank you. Yeah. In fact, I want to say when we talk about transmission, the cases that were in Illinois were actually because of prairie dogs.

GRIFFIN:
Yes.

MARTIN:
Which is fascinating to me that they were infected and so they infected humans and then human contact with other humans that had the disease, then that was the mode of transmission for that outbreak.

GRIFFIN:
Yeah. We think going back to that outbreak, that it wasn't actually even even a human being bringing it into the United States. It was actually part of the exotic pet trade. It's actually a pouched animal that was brought over as part of that pet trade; actually ended up getting into the prairie dogs. I don't know if people are familiar with prairie dogs, but having lived 20 years

out west, whenever I would go for a jog, where I would run was actually through where there were all these prairie dogs.

And, you know, I thought they were going to trip me, but I was also worried that they might give me some horrible disease. But yeah, we really think the reservoir is probably in rodents and that's a bit of a concern. We don't really know right now. We don't have a lot of great surveillance to know. Is it already in rodents here in the United States?

Are we just seeing cases here and there? So that's going to be a big public health challenge is looking at reservoirs is has a bit established in the reservoir here in the US.

MARTIN:
And how do we prevent panic and everybody running to their vet with their pets saying "test my pet" to see if they have.

GRIFFIN:
Yes. So don't do that, you know. You do not need to run to your vet, and I don't think they would really know how to test them in all honesty. But let's talk a bit about the transmission. Yes. Because we are going to be hearing more and more about monkeypox. More and more cases are going to be recognized.

But one of the comments I've made early on is this is not really a pathogen with pandemic potential. We're going to see cases. We're going to recognize more and more cases. There probably are a lot of cases already here that we just haven't recognized. But let's talk about transmission, because that's really key in what gives something pandemic potential.

So the main way that we're seeing transmission, the main way we've seen transmission historically is through broken skin. That's really the main one. But it's also a respiratory pathogen. So think of chickenpox, right? Remember those? And if our listeners are old, enough to remember the chicken pox parties, that was actually one of my earliest childhood memories. Why am I playing with the downstairs neighbor and why does she have all these things?

And then a week later, why do I have all these things on my body? So it's really a direct contact. There can be some situations, we think it's the minority, where it's actually respiratory spread, and I'm going to use the word respiratory. You breathe it in. Some individuals can actually get it out into the air. Some in neutrals can breathe it in but also you can have transmission through mucous membranes.

So some populations, if you have an individual who's infected and you have that close contact, think of those mucous membranes that might be involved. And actually that might also help our clinicians thinking about where to look for some of these lesions. But we really think, and historically, it's mainly through close contact. Maybe our listeners are familiar with the reproductive number, but the reproductive number is usually very low.

This isn't something that we usually see associated with exponential growth. So we are thinking we will see a number of cases. We're thinking this is an important pathogen to focus on, but we're not predicting a pandemic.

MARTIN:
Well, that's good news after the last couple of years that we've had. It's good to know you're not expecting a pandemic on this.

GRIFFIN:
Well, I think the next shall we get into incubation is I think this is this is important, but it's also a bit of a challenge. And I think people are familiar with with incubation periods so you've been exposed, you know, and you know, we've learned that you don't just test the next morning. It's like pregnancy. You don't become pregnant the next morning.

There's a bit of time and usually the incubation here is one to two weeks. So that is a little bit of a challenge when you hear about travel bans, things like that, because actually that incubation period, the time from when you're exposed to the time when you potentially have symptoms and become infectious can actually range all the way out to 21 days to three weeks.

So not really a disease that we're going to do a great job of controlling by taking individuals and locking them away for 21 days, a 21 day quarantine so the incubation here is important for us to know when we're thinking about how do we step in and limit the spread of this virus.

MARTIN:
From a public health perspective, thinking about 'how do we limit it'? And three weeks is a long time.

GRIFFIN:
It really is a long time.

MARTIN:
Yeah. Why don't we get into some clinical presentation about what we see?

GRIFFIN:
OK, I think that this is going to be really critical because we're going to start with the classic presentation and then we're going to break away and say, well, what are we actually seeing now? Because what I think allowed a lot of these cases to go undiagnosed is they were not presenting classically. They were presenting in a way that was a bit well, I'm going to say atypical from what we thought. But we're beginning to realize that that the spectrum of disease, the typical monkeypox presentation is a little bit broader than we think about.

So this does fall into those pathogens we think of as the presentation of fever with a characteristic rash and it's going to go through, you know, several different periods that we'll talk about. But I'm going to say right up front, we are seeing a lot of individuals never have that fever. And I think that that's important. You know, we always thought like fever, rash over 90%.

That's what we always have been taught, these diffuse eruptions. And so let's go through. So first, there's an invasion period that we typically talk about where a person has fever, perhaps headache, allergies, fatigue and swelling of lymph nodes.

MARTIN:
That's brief before the rash shows up.

GRIFFIN:
So that is before the rash before that is this invasion. This, this, you know, sort of early phase prior to the skin eruption phase, OK. And I think what's a little tricky here is we're not always getting and a large number of the cases that are currently being identified do not have that fever. So people are missing it.

They're thinking of other things. We'll go into what are they thinking. And I think some people will get ideas as we talk about where these lesions are forming. So first, there is this classic invasion period that we may not always see the fever, the headache, the muscle pains of fatigue, the swelling of lymph nodes. And that's something I want people to remember.

That is actually one of the fairly telltale, I'm not going to say unique, but one of the characteristic features of the monkeypox is the swelling of the lymph nodes. Now, this period can last from zero to five days, typically going to be about two to three.

MARTIN:
So you have your incubation period of up to three weeks and then almost a week of this phase before you even get.

GRIFFIN:
Before you even get the rash, you could see that you could see the public health challenges here and now. Then we move into the skin eruption phase. You know, and as we said, this could be zero to five, but it may really be typically about two or three days. And remember, two days, a lot of things here are two days, two days today as you sort of move through these things.

So you usually start off with the with the macules. And I was talking to a dermatologist today. I'm like, well, those are small patches, but they're not they're maculesl. So when something is a small red area, we call that a macula. And that's usually what we see as the first skin manifestation. You see these small red areas that usually, about two days of seeing these.

And this appears, and I'm going to say classically, we used to say it started on the face and from there would spread to the arms, legs, hands, feet. And it typically can include the palms and soles. So what I am going to point out is a lot of the macules, a lot of the eruptions that we're now seeing are not diffuse, localized, maybe to the very anal localized to the genital area.

People can probably guess about what sort of close contact might be involved in in those. And also not seeing the characteristic diffuse rash that we typically see developing in about 24-hours with this concentration on the face, arms and legs we call a centrifugal distribution interesting. And then there's a progression. So now you get these papules start to form and it's usually by about the third day.

So, it's a couple of days and then you start to see these raised area so papules, and then we see our vesicle. So starting to be the characteristic pox infection, and initially these vesicles are fluid filled. So for all the world you're thinking this could be herpes, this could be chickenpox. There are a couple characteristic things. One is all of these vesicles will be in the same stage of development.

So the macules form, the papules form, the vesicles form.

MARTIN:
Interesting, because chickenpox is not quite that way, right?

GRIFFIN:
Yeah. I mean, that's that's a critical distinction I want people to think about. That is what's critical about about monkeypox. Is that when you see these vesicles, when you see them later, they're all going to be in just about the same stage of development. Where we think about chickenpox, you'll see some lesions already healing, some new vesicles are forming.

This is going to be all vesicles. And then the next stage these vesicles are going to fill with pus they're going to be pustules. And when they all fill with pus, they all fill with pus. That's really kind of at the same time. So think about fever, not all the time. Think about swollen lymph nodes. Think about vesicles now full of pus, and you're going to have to spend a little time to look to see these.

And you may not want to spend a lot of time because as I'm starting to intimate a lot of the cases we're now seeing, these lesions are in the perianal. They're in the genital area, not a place we want to spend a lot of time looking at necessarily as clinicians, but they're all going to be in the similar stage of development, and then they are going to open they are going to undergo a scabbing. Still infectious at this point until that scab falls off and new skin falls underneath.

So we're even introducing another challenge here during this whole period of time. A person is infectious. Those vessels, even those scab two areas are teeming with virus. So the person is potentially contagious. So we had our potentially 21 days incubation and now we have this week or more progression, a one to two weeks of this infectious eruption phase.

MARTIN:
So as the clinician and other staff are doing their evaluation of a patient, what kind of PPE should they be using?

GRIFFIN:
So we've really ramped it up to really Ebola type level where you know you're going to go in with with gloves fully gowned. You're wearing your N95 because as we talked about a certain percent of the time, this can be respiratory acquired. You're going to wear goggles protecting your face. You're going to be really careful gowning and de-gowning when you go in and out of those rooms, you know, you think about.

But, but Dr. Griffin, you said most of the transmission is contact some of it is respiratory. But, you know, I think we hopefully we've learned that there's there's no dichotomy here. There's no binary to this or that and so even that low percent chance that you might inhale this in one of these negative pressure rooms, this is when you see those photos, you will realize this is not a disease you want to get.

So, and this is not a disease you want to let your staff get. It's not a disease we want to see continue to spread. So we're really saying reach out to your local Department of Health, use full fledged, high level personal protective equipment and then work with them as we get into, you know, what what are you going to be doing going forward?

But, I will sort of continue with this management, the clinical presentation, because there's a few things that I want to point out. So far I've described you know, in uncomplicated case, you know, in a lot of these cases, you know. 90% or even more will be self-limited. But some individuals will go on to have complications, such as pneumonia.

That's when we're worrying more about the respiratory spread. They'll develop problems breathing. They may develop skin super infections. There may even be abscesses developing. And some of those can actually affect the ability to breathe, to swallow. So there are secondary complications that we should be thinking about. Think about, you know, some of the photos that maybe people have seen.

If a lot of these pustules start to coalesce, you can involve so much of the body that it can almost be like treating a burn victim. There could be fluid, electrolyte, thermoregulation challenges.

MARTIN:
And that's a challenge that not every facility is set up to deal with. Not every organization has a burn unit. So, yeah, that's something to think about as you do patient management.

When we're talking about keeping our staff safe, I also wondered about our environmental staff that is in the room cleaning after patient's been there. Is there anything they need to be doing special? I'm assuming they're wearing PPE as well, but from a cleaning perspective, is there something they should be doing with the environment?

GRIFFIN:
Yeah, they they have to be treating this, you know, as a potentially, you know, high risk pathogens. So when they go in the room to clean is also going to be the whole full disinfection

protocol. But they're going to be wearing the N95, the gloves, the gown, the eye protection and, you know, and you're going to be reaching out to Department of Health to help coordinate these because we really do not want to have you know, I think sometimes we forget about the cleaning staff.

These rooms are potentially, you know, areas that a person can can get the infection. And we don't want to see that happen. And then when they get it, there can be this huge incubation. So we really want to try to contain these cases.
6
MARTIN:
Thank you. How about some diagnosis? OK, anything special we need to be doing here?

GRIFFIN:
OK, well, the first thing you want to do is pick up that phone so the the guidance now that we're getting from the CDC, and maybe we need to have a better relationship across the board with our local Department of Health, is when you have a case that you suspect is monkeypox, you want to pick up that phone because all of what we're going to be doing as far as diagnosis is going to be in coordination with the local Department of Health and then the CDC.

So what are we going to actually do as far as technology and even talk a little bit about the specifics of how we collect specimens. But you're going to get guidance on this. So you reach out, you're in communication with the Department of Health. The CDC is getting involved, as we talked about. This is a DNA virus. So we're going to be doing nucleic acid amplification testing.

So we're going to be amplifying up that DNA and we're going to be looking and seeing is there monkeypox viral DNA in these samples. You're usually going to be sending a couple dry swabs. But don't worry. You know, if you remember this, you're going to be directed by your local department of health. There is also the ability to do serology testing.

We can look at IGM and IgG exams coming up a little bit earlier than IgG, maybe about day five. By about day eight, we might start getting IG. So a little bit earlier on the IG than we typically think about earlier than that, three weeks there also are the ability to do biopsies and actually send off biopsies to do immunohistochemistry studies. But the Department of Health will work with you.

And really the core of our diagnosis here is our molecular testing, our PCR, nucleic acid amplification testing.

MARTIN:
It sounds like they're going to be our BFFs, right?

GRIFFIN:
They should be. They should be. We need to have, you know, better funding and better relationships with our Departments of Health for sure.

MARTIN:
So after we've identified and diagnosed the patient then, how do we manage them?

GRIFFIN:
Yeah, so I alluded to this a little, but let's go into a little bit of detail. So, now you have this person, we have all the infection control you know, in place. We're keeping ourselves in the staff safe. But what about the patient? We now have confirmed that they have monkeypox. So the mainstay of therapy here is going to be supportive care.

We want to focus on hydration. We want to focus on the skin because as I mentioned, we don't want to be opening these blisters. We don't want to be getting these super infected. We want to be covering them and protecting them with clean and dry. But there also are actually some potential therapies. There are actually some anti-virals. So we'll go through what those are. So there's Teco, .

Tecovirmat. Right. This is another challenge for people, too. So Tecovirmat,, right? This is actually a a therapeutic that's been developed that interferes with the nuclear capsid. So it actually interferes with that virus being constructed and exiting the cells. We also have Brincidofovir, which is actually an analog of cidofovir. So that's going to interfere with our DNA polymerase.

There also is vaccine interesting enough. So we actually have a monkeypox vaccine. There's some data on doing it as a post-exposure vaccination. And there actually are not a lot of doses, but over a thousand doses of Jynneos. It's a vaccine produced from a modified Vaccinia Ankara-Bavarian Nordic [MVA-BN]. It's an attenuated, non-replicating orthopoxvirus grown in chicken embryo fibroblast [CEF] cells.

So we actually have a vaccine for monkeypox.

MARTIN:
Which is pretty impressive considering the first case was 52 years ago.

GRIFFIN:
And it's sort of a neglected disease. So what you know, and it is interesting that we've gone ahead and done, you know, previously and people may be aware of this they're we think has been protection from smallpox vaccine that people estimate about an 85% effectiveness of a smallpox vaccine for for monkeypox but it probably is limited in how long that lasts because as we you know as we had we had a number of cases here in the U.S. right around 2003 and a number of those individuals had actually been smallpox vaccinated and we didn't really see any difference as far as presentation as far as severity with that smallpox vaccine.

So it may not last a whole period of time. So we do have a vaccine and we also have immunoglobulin. So people are probably familiar with that. So the monoclonal antibodies, the convalescent plasma, so we actually have an immune globulin that we can use as well. So there

are some therapeutics, but the mainstay in most of the world really has been historically supportive care and I think sort of throwing in here.

So we had those cases that we talked about here in the US. Zero mortality, no one died. So with proper supportive care, people can do quite well. And also, as I mentioned, a lot of the cases we're seeing now and this is sort of an alert to the clinicians are a few periodontal vesicles, maybe some vesicles in the genital area, not this diffuse disease.

These individuals you would expect to do well, but you also might miss the diagnosis if you're expecting this huge dramatic, popular disseminated rash which later on militates so what's probably happening, which I think we're realizing now, is we may have been mistaking a lot of these genital eruptions for just some herpes something like that, not doing molecular testing, not recognizing that this was monkeypox.

MARTIN:
Very interesting. What should a clinician do if they have been exposed? If you have a physician who didn't realize that this is monkeypox. And so they did not go in with their full PPE and they're doing an exam and they've been exposed. Should they isolate? Should they just monitor themselves? What should they do to keep themselves, their family, their staff protected?

GRIFFIN:
Yeah. So that is the challenge because this post-exposure incubation period can be as long as three weeks so you are going to be reaching out to Department of Health. You're going to be talking to the CDC. We do have the ability to do the post-exposure vaccination with the Jynneos vaccine. But yeah, this is going to actually be a challenge because can we can we all these cases which you've probably been missing, are we really going to be quarantining for 21 days?

Probably not. But you're going to be working with your local Department of Health to look at how significant was your exposure, you know, and who might you be potentially exposing should you actually go ahead and actually get this infection. So again, just wearing those gloves, being careful, thinking, having this on your radar, not just sort of writing off some perianal or some genital vesicles too, just a herpes virus actually maybe even starting to think in your practice doing a little more molecular confirmation, you know, and if you're not getting and this is actually, I will say part of the protocol is before you're, you know, going down this road of monkeypox, you're looking for HSV one and two. You're looking for Shingles or varicella zoster virus. If those are not present if you don't have an explanation, you know, the monkeypox is potentially going to be looked for.

MARTIN:
And, you know, it's interesting, we were talking earlier about that it could be exposure to an infected rodent as well as human contact. So the patient themselves may not feel like they were exposed, and have no idea that they really were. So they may not present with the history that the clinician is expecting either.

GRIFFIN:
Yeah, I think that's that's critical. And I'm going to sort of, you know, take a take a moment to address that issue that, you know, some of the cases that we're recognizing now, we're recognizing because they've had exposure to someone else who had the monkeypox. And I don't want people to run into the same mistake that we ran into with the COVID19 pandemic, where, you know, unless you're exposed to that person from Wuhan, you're not you're not getting your diagnostic test.

So we are identifying you know, 38 countries, more than 940 community based monkeypox cases. So there really are a number of cases being identified. Some of them are associated with it with a few different events where we've you know, these are gatherings in Antwerp, Belgium, in Madrid, Spain, in the Canary Islands where we think of those were potentially super spreader events.

But we've already identified that there probably were two different types or say, types of monkeypox, genetically diverse. So these are not all a single introduction. It looks like there were a couple different introductions that are spreading so this goes much more with the idea that it's been here, it's been unrecognized, and it's our challenge not just to identify the low hanging fruit, those obvious exposures, but start looking broader and seeing how many people actually have monkeypox that we're missing because we're only looking at people who have that that sort of red flag that that association with travel or one of these gatherings.

MARTIN
Well, do you have any parting words for us?

GRIFFIN:
Well, so many parting words, but I think the biggest thing is, you know, there is this idea that, oh, you know, monkeypox, you know, when you see it, you'll recognize it. But I suspect a lot of us have have probably seen, you know, presentations that could be monkeypox. Some people listening, maybe even missed it, thinking it was something else.

So the big thing I want people to take away is that the monkeypox cases we are seeing now are not a Black skin individual just covered with pustules. We are seeing this on White skin. We're seeing it on Black skin. We're seeing it on Hispanic skin. We're seeing it on a lot of different skin backgrounds. We're seeing presentations which are not classic.

We're seeing presentations without fever. We're seeing small areas of lesions. So we really need to increase our clinical suspicion. We need to do a bit more molecular testing so that if we do not have an obvious explanation for what something is, we then can reach out to our DOH and get guidance. So let's hopefully not miss cases. This is not something where the sky is falling, but it certainly is a case where we should do a really good job to limit the number of cases and to keep this under control.

MARTIN:

Thank you, Dr. Griffin, for the timely discussion related to not only the identification and treatment of monkeypox, but also a bit about its history, the media use of easy to find stock photos that would imply it is an African disease also gives us pause as we consider our own implicit biases.

Thank you so much for being with us for this episode. Always informative to say the least. And for our listeners, keep your learning going about monkeypox by exploring the references and the resources for this episode in the show notes, and listen a few moments longer to learn how you can obtain credit for this podcast. Thank you for listening. This is Deborah Martin with Elite Learning.