

Bob Falcone:

I'm Bob Falcone, CEO of the Columbus Medical Association and affiliates. Today, we have a panel of experts to discuss the longterm sequela of COVID-19 infection. Also, known as the COVID long-haul syndrome.

Bob Falcone:

Next, I'm welcoming Dr. Joe Gastaldo. Joe is an infectious disease specialist, and he's the system medical director for infectious disease at Ohio Health. Joe, we had a really nice chat with Dr. Alexa Meara, who talked about the immunology of post-COVID symptoms. I'd like to spend our time on the virus. As you know better than I do, a number of viruses cause sequela, post-viral sequela. How's COVID different?

Joe Gastaldo:

Yeah. Well, first of all, I'd like to thank you for having me here to talk about this important topic. And I'm very honored and humbled to be talking about post-COVID syndrome with the CMA community, because it really is a challenging concept for our patients and also for our providers.

Joe Gastaldo:

So the virus, coronavirus, SARS-CoV-2, as you described, Dr. Falcone, it is well known that many infections have post-infection sequela. Whether it be influenza, pneumococcal pneumonia, and even post-sepsis syndrome, that those syndromes have been described for a long period of time.

Joe Gastaldo:

The issue with COVID-19 is that we really don't know a lot about it. There's no strict definition of it yet. The United Kingdom is kind of ahead of us a little bit with talking about it, and their definition of it based on one of their recent publications, where they measured it, was people who were symptomatic after 28 days. And they recognize it, in both people who've been hospitalized with all severities of illness, but also too, with people who have not been hospitalized. It is seen more in women than in men. And the spectrum of symptoms describe that post-COVID syndrome is very protean, and it includes things like fatigue, mental fogginess, shortness of breath, cough, chest pain, persistent nausea, diarrhea, and even myalgias. And those patients are looking for help. And there really is a mindset, where we really have to take care of those patients and be respectful of what they're going through.

Bob Falcone:

So do you have a feeling for how much of that is structural to the damage that the virus caused initially and how much is residual, maybe residual virus or-

Joe Gastaldo:

Well, it's probably not from residual virus. There's a good data out, there that we know, unless you have high severity of illness, everybody clears the virus within 10 days. High severity of illness, most people clear the virus after 20 days. And those with weakened immune systems, transplant patients, those on long acting biologicals, those people can clear the virus longer over a period of time. And PCR testing, you take with a grain of salt, because as everybody knows, you can be PCR positive and not have a virus that replicates. The gold standard testing is a viral culture, but most people are not considered still shedding live virus, we have post-COVID syndrome.

Joe Gastaldo:

And when it comes to the disease process and what's causing it, it really depends on the patient's chief complaint. For example, those admitted to the hospital with severe COVID pneumonia, those patients are more likely to have lingering cardiopulmonary complaints. COVID, depending on the severity of illness, can have structural lung disease, lung scarring, pulmonary fibrosis. I've even reviewed a case report, published in the literature, where somebody had to undergo a lung transplant, after having a severe case of COVID. But again, it really depends on what the symptoms are that the people have.

Bob Falcone:

So what do you see in your practice?

Joe Gastaldo:

Well, in my practice, I typically see a lot of primary care physicians who reach out to me and say, "Hey, Joe, I have this patient who had COVID and they have not bounced back." And they're reaching out to me for what next, "What do I do with them? What is the methodical way to really clinically think about them?" And that's where really, I think, there's a big opportunity to talk to those patients and go through a checklist in your mind of things to think about when you evaluate patients who have persistent symptoms after having COVID.

Bob Falcone:

So give me an example of what that checklist would be like.

Joe Gastaldo:

Yeah. So when you see a patient who has post-COVID syndrome, you have to really cover your bases. So obviously, things to think about would be obviously a secondary bacterial infection. Do they have a secondary bacterial pneumonia? Try to tease that out. If they have persistent sinopulmonary complaints, is it worthwhile to really do a high resolution chest CT to get an idea of any structural lung disease? Depending on their complaints of shortness of breath or dyspnea on exertion, is it worthwhile to do formal pulmonary function tests to get an objective measure of what that looks like? Depending on their complaints and depending on their labs, other things to consider would be cardiac imaging studies. If they have those types of complaints, with an elevated troponin.

Joe Gastaldo:

I always do recommend a sed rate or a C-reactive protein and a D-dimer to see if there's anything inflammatory going on. COVID-19 does put people in a hypercoagulable state. And I always tell people to really have a low threshold to do a thromboembolic workup, especially, if there's an elevated D-dimer. COVID-19 is associated with both arterial and venous clots. So again, those are the things that you really want to do to cover your bases and to give you that an idea of the type of referrals to make.

Joe Gastaldo:

If your workup in the PCP office is really unrevealing, other things to consider would be the psychological trauma of recovering from COVID-19. Whether it be anxiety, post-traumatic stress disorder, a lot of people after being hospitalized do lose some of their functional status. And I know in the real world, there are physical therapists who are working on exercise programs for post-COVID patients. I know at the OhioHealth Rehab Hospital, the therapists there have reached out to me to say

that they are operationalizing, as in a post-COVID clinic for people who need help with their exercise tolerance.

Joe Gastaldo:

So again, those are the bases that you really want to cover when you see these patients. It really takes a special type of doctor to see these patients because you really want to be transparent with them and say, "Hey, you know what? It sounds like you have post-COVID. This is a syndrome that's not clearly defined. We don't know a lot about it, but guess what? I'm going to take care of you. I'm going to work with you. We'll get through this together." There are a significant amount of post COVID patients who do get better over time, with just supportive care and tincture of time.

Bob Falcone:

And things like fatigue, and you mentioned kind of a mental fog, I suspect some kind of physical therapy or even cerebral rehab might be effective for some of those people.

Joe Gastaldo:

Absolutely. And I know in addition, there are neurologists within the central Ohio community. I know in OhioHealth, Dr. Daniel Smith, is a neurologist who has a special interest in post-infectious neuropathies and encephalopathy. So within the area of neurology, cardiology, pulmonary, there are leaders in our community who are taking a special interest in helping out and supporting and evaluating post-COVID patients.

Bob Falcone:

So other than making sure there isn't something else going on and treating these people symptomatically, and perhaps with some form of rehab, are there any drugs that are effective? Is there anything on horizon?

Joe Gastaldo:

There's really nothing on the horizon. A lot of it has to do with the fact that there's no clear definition of it, and we really don't have a clear understanding of the pathophysiology of post-COVID syndrome. Some of the things that are out there being talked about speculatively are things like the induction of some form of antibody or auto antibody, but it's really just supportive care at this time. And of course, things like a good night's sleep, a well-balanced diet, increasing your activity as tolerated and appropriate referrals when tolerated.

Bob Falcone:

Got it. So the prognosis is unclear, but you say a significant number of people get well?

Joe Gastaldo:

The prognosis is unclear. The vast majority of people do get well over time. But again, we want to provide care to those patients in a compassionate way. I think a lot of it too, has to do with the fact that physicians and patients get frustrated, because we don't know a lot about it. I'm very happy to see that the CDC does acknowledge that. The CDC does now have video webinars on that. They've had two. And the NIH is actually doing a lot of research on post-COVID. And those seminars are available virtually online. There's two that have been recorded. One on the CDC, one of their Saturday calls. And then, the

NIH had two days worth of seminars on that in early December. And they're going to continue to study that. We owe that to our country and our patients. So I am happy to see that at the federal level, they're putting the resources into studying it.

Bob Falcone:

From your previous comments, after 30 days, people are almost always not infectious anymore. Is that a good assumption?

Joe Gastaldo:

The vast majority of people, when people have mild to moderate COVID, many studies have shown after 10 days from symptom onset, from being a febrile for more than 24 hours without being on antipyretics, and with clinical improvement in their symptoms, they no longer shed live virus. That duration goes higher, to 20 days, for people with higher severity of illness or hospitalized patients.

Bob Falcone:

But by the time they're knee deep in post-COVID symptoms, they should no longer be infectious? So that's not a concern.

Joe Gastaldo:

That is correct.

Bob Falcone:

When should they get vaccinated, or should they?

Joe Gastaldo:

They should be vaccinated. And again, let's go through the official recommendations on when somebody can be vaccinated, in the setting of previously having COVID. And the CDC's wording on this initially was a little bit clunky, but what they initially said is that when somebody recovers from COVID, another infection is very unlikely and uncommon within 90 days.

Joe Gastaldo:

So if somebody's [inaudible 00:10:51] had COVID, for 90 days, if they desire, they can choose to wait. The CDC changed that verbiage because a lot of people read that and what they read was, that if you previously had COVID, you should wait 90 days to get vaccinated. So they changed that around, I'm glad. The official ACIP recommendations on being vaccinated for someone who's had COVID is as follows; if somebody has had COVID, as long as they are out of isolation and they have clinically improved and recovered from COVID-19, they can choose to be vaccinated.

Joe Gastaldo:

Anecdotally, I could tell you from various things I've heard and talked to from other people who've had post-COVID syndromes, there are some people who are reporting improvement in some of their post-COVID symptoms. Specifically, I had somebody in OhioHealth, who had COVID several months ago, who still had persistent changes in their taste and smell. And about a week or two, after being vaccinated with the first dose, that completely came back after suffering from that. I had somebody else reach out to me to say they really had a lot of fatigue and mental foggy after having COVID four or five months

ago. And after being vaccinated, the symptoms, essentially melted away. Is that mean anything? I don't know. It needs to be studied, but again, it's a big area that we need more data on.

Bob Falcone:

Really fascinating. Sounds like this is an evolving diagnosis, and there's going to be more to come hopefully quickly, especially for all the primary care docs out there that are taking care of these patients, and don't have any tools that they can pull out of their armamentarium. I think some of the suggestions you made are very good. Did we miss anything?

Joe Gastaldo:

No, I think the big thing is, again, we have an obligation to support our patients in a caring way, in a non-judgemental way. Social media has really connected a lot of us. I know on Facebook, there is a long-hauler support group, really full of thousands of people. And they share stories and they swap stories and this, that, the other.

Joe Gastaldo:

But when these patients come to you, I think a good philosophy or mindset to get into, is to be transparent with them. And you know what? Support each other and learn from each other. As an infectious disease doctor, we see people all the time, where we don't have guidelines on, but you want to be transparent with them. And I think our job, as a doctor, to support them and obviously allow no harm to become upon them when it comes to prescribing medicines or doing unnecessary tests. But it's really something that we have to support our patients about, cover your bases and make appropriate referrals to providers who have a special interest in that area.

Bob Falcone:

Thank you, Dr. Gastaldo. That was great.