Eliminating Diagnostic Delays in Psoriatic Arthritis

CMEO Podcast Transcript

Allan Gibofsky:

Hello and welcome. On behalf of CME Outfitters, I would like to welcome and thank you for joining us for the first in a series of three CMEO podcasts titled *Eliminating Diagnostic Delays in Psoriatic Arthritis*. This podcast series is supported by an educational grant from Janssen Biotech Inc. administered by Janssen Scientific Affairs, LLC.

I'm Allan Gibofsky, professor of medicine at Weill Cornell Medicine and attending rheumatologist and co-director of the Clinic for Inflammatory Arthritis, a hospital for special surgery in New York, New York. I'm joined today by my dermatology colleague, Dr. April Armstrong, professor of dermatology and associate dean for clinical research, director of clinical research support, Southern California Clinical and Translational Science Institute, and vice chair director of clinical trials and outcomes research, director of the Psoriasis Program of the Department of Dermatology at the Keck School of Medicine at the University of Southern California in Los Angeles, California. Welcome, April.

April Armstrong:

Thank you, Allan, for having me here.

Allan Gibofsky:

For our audience, today's activity is eligible for the American Board of Internal Medicine Maintenance of Certification credit. It's also available as a CME for MIPS improvement activity. Complete your post-test and evaluation at the conclusion of the activity, and be sure to fill in your ABIM ID number and date of birth on the evaluation for a credit to be submitted to the ABIM. Over the next 90 days, actively work to incorporate improvements from your clinical practice in this presentation, complete the follow-up survey from CME Outfitters that you will receive in approximately three months and CME Outfitters will send confirmation of your participation that you can submit to CNS attesting to your completion of a CME for MIPS improvement activity.

Let me review today's learning objective. We're going to attempt to learn how to decrease diagnostic delays to better identification of signs and symptoms of psoriatic arthritis. So April, let's start off today's episode with a brief overview of psoriatic arthritis from your perspective.

April Armstrong:

Yes, Allan. From my perspective, psoriatic arthritis is this progressive chronic and oftentimes heterogeneous disease, where there's systemic inflammation that can affect multiple domains. It's important to know that about one third of the patients will develop psoriatic arthritis. And that's one third in patients who have psoriasis at baseline. And when we think about these different domains of psoriatic arthritis, we typically think about peripheral arthritis, enthesitis, nail disease, dactylitis and also axial disease. And obviously skin psoriasis is part of this psoriatic arthritis and psoriatic disease spectrum.

Allan Gibofsky:

Now this is of course a systemic disease as you've outlined. But since it is a psoriatic arthritis, let me take a minute just to focus on joint involvement. Predominantly, joints involved in psoriatic arthritis is asymmetric and almost always, but not always, involving multiple joints. It's a polyarthritis. It involves the distal interphalangeal joints involvement primarily, although occasionally there will be involvement of the proximal interphalangeal joints. The metacarpal interphalangeal wrists are involved and axial spine disease is also a significant phenotype of psoriatic arthritis.

In addition, enthesitis, or the inflammation of where tendon inserts into bone, is a prominent feature. Dactylitis or sausage shaped swelling of the fingers and toes, is a feature. Synovitis or inflammation of the synovium, the lining of the joints, and tenosynovitis, inflammation to the soft tissue structures of the tendons around the joints, as well.

Now we know that there are certain comorbidities that are common in psoriatic arthritis as well. Before we get to those though, I just want to highlight that even when we go beyond joint and skin, we have a number of I'll call constitutional problems with this disease, such as fatigue, poor sleep quality, diminished work capacity, and physical function limitations, as well as diminished social participation. All of these taken together are significant, and particularly when merged with the other comorbidities that may occur, can significantly impact on the health-related quality of life on patients

April Armstrong:

And Allen, we mentioned that these comorbidities are common and they're very important when we think about psoriatic arthritis. Can you dive into that and give us a little bit more detail on exactly what those comorbidities are and perhaps how common they are in psoriatic arthritis?

Allan Gibofsky:

Sure. Now, in addition to this being a systemic disease, there are also other organ systems that may have their own problems either as a result of or concurrent with the psoriatic inflammatory process. Ocular inflammation may be seen quite commonly. Bowel problems, inflammatory bowel problems in particular may be seen. And there may be a psychosocial burden of anxiety, depression, suicidal ideation, and substance use or abuse. Finally, because we're dealing with an inflammatory condition and un or under controlled inflammation, is itself a factor for cardiovascular disease. There may be an additive increased risk of cardiovascular disease due to other factors such as hyperlipidemia, hypertension, insulin resistance, diabetes and obesity.

Now with regard to incidents and frequency, one of the concerns is that about half of patients with psoriatic arthritis are referred because nearly half of patients with psoriasis may experience joint pain without a diagnosis of psoriatic arthritis. Psoriatic arthritis frequently develops within 10 years following the appearance of psoriasis, but about 85% of patients develop psoriasis before psoriatic arthritis. And so the arthritis may either proceed or occur after, or even occur concurrently. And we'll be talking about concurrent management in a little while.

So I think that brings us to one of the important points, which is that early detection and treatment become critical for improving long-term patient outcomes and minimizing irreversible joint damage. We also know, unfortunately, that there are significant delays in diagnosing psoriatic arthritis. There's an interesting study recently presented of about 160 cases in a retrospective population based cohort of incident patients who were over 18 years of age, who met the CASPAR criteria for psoriatic arthritis. And when this group was looked at more carefully, the lag time from disease onset to confirmatory diagnosis was about two-and-a-half years. 23% diagnosed at six months, 35% at one year, 45% at two years.

Allan Gibofsky:

So diagnosis at a younger age with high BMI and enthesitis before diagnosis were interestingly associated with greater delay. One might've thought exactly the opposite, that these signs would have led to an earlier pickup, but in fact, they didn't. And also interestingly, something that you see much more than I do, at least initially, is that sebopsoriasis, that diagnosis at least, was associated with less likelihood of delay.

So when it comes to the clinical diagnosis of psoriatic arthritis, April, are there some screening techniques that you and your colleagues should be aware of and helping to establish, or at least make the diagnosis suspect?

April Armstrong:

Thank you, Allan. As you know as dermatologists, we can be pretty busy in our practice. And one of the tools that I have found to be helpful is this useful acronym called PSA. And P stands for pain in the joints, S stands for stiffness that's greater than 30 minutes after inactivity. It also stands for swelling or sausage digits, referring to dactylitis. And A reminds us of axial spine involvement, essentially back pain that's associated with stiffness and pain that can improve with activity. So I thought this is a really neat little acronym that allows us to remember the different features of PSA and will prompt us to answer the question of whether the patient may be exhibiting signs or symptoms of PSA.

Now, there are certain questions. How do we translate that into actual questions? There are certain questions that can be very helpful in the clinic to help us determine the presence of inflammatory arthritis. In fact, a yes to the following questions can be very effective.

Number one is, have you ever had tender or swollen fingers or toes? Two, do you experience morning stiffness lasting longer than 30 minutes to an hour? I find this is very important. This question helps us to really think about the type of inflammatory arthritis that PSA is. And frequently patients, when they wake up in the morning with active PSA, could feel stiffness in their joints and it takes a while for them to get a "[inaudible 00:10:23]" and to find that their joints can then move a little bit better. A related question is, does your pain improve with exercise or joint pain improve with exercise? And if the answer to that is, yes. It helps us to really think about PSA being potentially one of the diagnoses. And then finally, just a straight question regarding, have you seen a rheumatologist before, will be very informative. And obviously, assessment from a rheumatologist will really help us in terms of ensuring that we are looking at the right set of diagnosis for our patients.

So Allan, when a patient is referred to you, what do you do as part of your workup?

Allan Gibofsky:

Right, so usually when a patient is referred to me, it's from a dermatologist who has already confirmed a diagnosis of psoriasis. So what I'm looking for is primarily but not exclusively in the joints. And it turns out that there's a group that has come up with some very nice criteria for the classification of psoriatic arthritis. Now, our listeners should know that classification criteria are really not the same as diagnostic criteria. Classification criteria are defined to come up with stratification of patients for enrollment in clinical trials. Nevertheless, classification criteria can be very helpful in making a diagnosis.

And these CASPAR classification criteria can be summarized as follows. Basically, you're looking for an inflammatory musculoskeletal disease and you can assign certain points to the presence of certain features. So if the patient currently comes to me with psoriasis, they get two points. If they have a history of psoriasis, but I don't see any disease where I'm examining them, that's one point.

Allan Gibofsky:

If they have a family history of psoriasis, that's one point. If they have nail changes that are suggestive of psoriatic disease, that's one point. If their rheumatoid factor, their test for an IgM, anti IgG is negative, that's one point because remember, we're dealing with a disease here that is marked by the absence of a rheumatoid factor. If they have sources shaped deformities of the fingers or toes, dactylitis, that's one point. If they have certain imaging criteria, which we'll get to in a minute, that's one point.

Now, if you put all of this together and the patient has at least three points in the schema I've outlined, then they probably have or at least have a very good likelihood of having psoriatic arthritis. I would then extend my workup to do certain basic laboratory tests, such as a CBC with differential, a BUN, creatinine, uric acid, urinalysis, a SED rate and a CRP, which are non-specific markers of inflammation. They can be negative, they can be low or they can be elevated depending upon the activity of the inflammation when the patient is seen. The rheumatoid factor and the anti CCP antibody, also known as the ACPA, should be in nearly all cases negative.

So the thing here is that in our laboratory workup, we're looking for what's not there rather than what is, to make the diagnosis of psoriatic arthritis, which by definition is a seronegative disease, as opposed to rheumatoid arthritis, which is in 80% of cases a seropositive disease, meaning they have a positive rheumatoid factor.

Now in addition, my workup might include tapping the joint if the patient's presenting with a large joint with fluid in it and synovial fluid analysis, to be sure that I'm not dealing with crystal deposition disease or with infection or non-specific inflammation. And I'll probably get x-rays of the effected joints as well, and I'll come back to that in a second.

So if I were to sum up the laboratory testing, there are some specific challenges in making the diagnosis, because as I said, the diagnosis is made by what's not positive rather than what is. The rheumatoid factor is usually not positive, but about 13% of patients in one series can have a positive rheumatoid factor because the rheumatoid factor may artificially be positive in all of us as we age, part of the so-called senescence of the immune response. The anti CCP may be positive in a small number of patients, but that will usually be negative in psoriatic arthritis.

I mentioned that the C-reactive protein and ESR, erythrocyte sedimentation rate, are markers of inflammation, but they're non-specific markers of inflammation, which means if they're elevated, it only means that inflammation is present. And it doesn't tell me what the cause is. But if the patient doesn't have active disease when I see them, it may not be highly elevated, in which case I can still make a diagnosis of PSA based on other criteria.

I alluded to the imaging and there we do have some characteristic findings that may help us. Plain x-rays have been very good for the diagnosis of psoriatic arthritis. In the hands, there is a so-called characteristic pencil-in-cup deformities where erosion of the distal phalanges in their insertion often looks like a sharpened pencil being put into a flared cup. There can be peripheral ankylosis of joints, or more commonly, axial ankylosis leading to the axial variant of the disease. There can be subluxation of joints, bone proliferation, bony erosion as I mentioned in the description of pencil-in-cup deformity. Synovitis and tenosynovitis may also be seen in the plain x-rays as swelling around the joints in the grain of the shadows. And usually, as I mentioned, there is DIP involvement rather than PIP involvement as the hallmark of this disease.

So I think we can begin to think of psoriatic arthritis as one class of entities and begin to differentiate it from many of the other entities that you and I may be challenged by. April, can you put this all together for us in a little bit of a cheat sheet?

April Armstrong:

Absolutely, Allan. So first of all, I just want to say that was quite a tour de force. And I felt like I learned so much from you with regards to PSA workups. So that was super, super helpful. Now for us non-rheumatologists, oftentimes we have a little bit of trouble of distinguishing PSA from other types of arthritis, such as RA, OA, fibromyalgia or gout. And so what you see here is a useful table that talks about the differences in, for example, patterns of joint involvement and whether it's symmetrical or asymmetrical, axial involvement, radiographic findings, laboratory findings, and extra articular manifestations, as well as some of the demographics that are typical of these different types of arthritis. And this useful table will be a part of the educational resource that's available to our viewers here. Now Allan, what should dermatologists know about axial manifestations of psoriatic arthritis?

Allan Gibofsky:

Excellent question. We're beginning to learn that axial psoriatic arthritis may be different from axial spondyloarthropathy in the idiopathic version, but it's often complicated to make the differential because axial psoriatic arthritis and axial spondyloarthropathy, what was previously known as ankylosing spondylitis, are part of a spectrum of spondyloarthritis. There are overlapping features, but there are different genetic, clinical, radiographic and prognostic characteristics. For example, the genetic marker HLA-B27 occurs less frequently in axial PSA than it does in idiopathic AS, but it is a genetic risk factor for both diseases. Axial PSA seems to develop in an older age, is less symptomatic, and associated with distinct radiographic features. One of the problems though is that there is a lack of universally accepted definition of axial PSA in my community that further makes the true comparison of the two diseases, particularly challenging.

With all of that. As background April, let's talk about the referral process. Now we've presupposed that in most cases you are going to be referring the case to me. So tell me what goes into your mind when you think about making that referral.

April Armstrong:

When I think about making a referral to a rheumatologist, it's oftentimes for one of two reasons. Number one is for diagnosis of PSA. As you have pointed out, sometimes the diagnosis can be challenging and laboratory and imaging tests can be helpful. So I would say as a non-rheumatologist, as I'm thinking about what this joint presentation could be, whether it's an inflammatory disease, I may run into diagnostic dilemmas or challenges that would love a rheumatologist colleague to help. So that's number one reason for referral, is for diagnosis or confirmation of diagnosis or solving a diagnostic dilemma in my patients. And why that's useful and helpful is because understanding whether a patient has PSA or not will allow me to work with the rheumatologists to choose an option that could be good for both the patient's PSA as well as their psoriasis.

Now, the other reason is definitely for management. Some of our colleagues oftentimes live in areas where the patients may not have ready access to rheumatologists in a timely fashion. And so if I take on the responsibility, for example, of managing a patient's psoriatic arthritis as well as their psoriasis, oftentimes I would need help and guidance with regards to whether I'm doing a good job from a joint perspective.

Now Allan, along those lines of management for psoriatic arthritis, can you tell me what types of tests do you think a non-rheumatologist, such as a dermatologist or primary care physicians, should perform before referring a patient to you for evaluation of PSA?

Allan Gibofsky:

Yeah, it becomes problematic because as I've outlined, it's what you're not looking for that often makes the diagnosis. It's what's negative that helps make the diagnosis. That said, I would appreciate getting the patient with a basic CBC having been done, perhaps with a uric acid having been done, all basic blood work so that in the event I start therapy when I see the patient, I have my baselines to work from.

Really what I'm asking the dermatologist or a PCP to do is in their own mind differentiate between inflammatory and non-inflammatory arthritis. If you think this is an inflammatory arthritis, then don't hesitate to pull the trigger and make the referral. But if you think you're dealing with osteoarthritis or you're dealing with regional pain syndrome or something else, then the imperative for getting to the rheumatologist becomes less important. I didn't say not important, but less important. So I think there are basics of the workup that can be done proximal to referring the patient, but the interpretation of those tests are probably best done by me. And that will be my guide for starting more advanced therapy.

April Armstrong:

Yeah, absolutely. I think those are great points. What if a delay, let's say, in getting the patient to you? What do you suppose that, for example, dermatologists could do in terms of pain relief and whether NSAIDs have a role in that?

Allan Gibofsky:

Well, there's certainly no downside to getting an anti-inflammatory. Of course, one is concerned about the heart, the kidney, the liver, but if this is going to be for a short period of time, we've got to relieve the patient's pain. And yes, in many parts of the country, there is a delay in getting to the rheumatologists. But more and more, April, I think you'll find that when you establish a good relationship with a rheumatologist or several, when you make the referral and you are pretty much assuring yourself that this is inflammatory, the rheumatologist will try to fit an inflammatory arthritis patient in a lot sooner than a patient with noninflammatory pain or a patient with regional pain syndromes. So the delay shouldn't be that significant, particularly if the patient is in a plan that doesn't require gatekeeper services. So I think those are the things to think, about that we should try and relieve the patient's pain while we're waiting to get the patient to make the definitive diagnosis by the rheumatologist.

So let me summarize, April. We've talked about diagnosis a lot, and hopefully we've achieved our goal of recognizing the impact of delays to diagnosis on joint damage and patient quality of life that we began our discussion with. We've discussed ways of seizing opportunities to screen patients of psoriasis for psoriatic arthritis, using simple questions to uncover the potential for inflammatory joint disease. But we acknowledged that psoriatic disease is not always visible in patients with psoriasis. And so it may be important to examine the skin of the patient every time they're seen by the rheumatologist, something that I do routinely even if the patient is not referred to me by the dermatologist. I'm going to disrobe a patient completely at every visit and look extensively at the areas that are most frequently associated with psoriasis, particularly in those patients in whom the joint disease may antecede the skin disease.

And I think we've also talked about identifying the overlapping features of psoriatic arthritis with other inflammatory conditions. So April, I want to thank you for our discussion and remind our audience that this is a podcast that's one of a three part series. And we really hope that our listeners will take the advantage of all the episodes in the series. These activities and a wide variety of other activities and resources on inflammatory disorders for both healthcare providers and patients are available on the CME Outfitters Psoriatic Arthritis Education Hub, and that link is on the screen and made available to our listeners.

Allan Gibofsky:

And finally, I want to remind our listeners and viewers that to receive CME credit, click on the link to complete the post-test and evaluation online and be sure to fill in your ABIM ID number and date of birth on the evaluation so CMEO can submit your credit to ABIM, and then you can print your certificate or statement of credit immediately.

April, thank you once again for joining me. Thank you audience for joining April and I. We hope the presentation gave you some new strategies for recognizing the [inaudible 00:27:56] of psoriatic arthritis in your patients with psoriasis so that you can take the next step towards referral and next step towards treatment to mitigate joint damage. Thank you.