TRANSCRIPT

S1.E2: PSORIASIS (Part 1 of 2)

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Dr. Tom Kovi: Hello and welcome to *Spot Diagnosis*, a podcast about all things dermatological brought to you by The Skin and Cancer Foundation, now known as the Skin Health Institute in Melbourne, Australia. I am Dr. Tom Kovi.

A/Prof. Alvin Chong: And I'm Associate Professor Alvin Chong.

Tom: We are your co-hosts. This episode, we'll be talking about psoriasis and we're very lucky to have with us our guest, Associate Professor Peter Foley. Professor Foley is a leading expert on psoriasis and serves as Australia's only counselor on the International Psoriasis Council. He's also the Director of research at the Skin Health Institute, and has been involved in over a hundred clinical trials for diseases, including psoriasis. Thank you very much for being with us, Professor Foley.

Alvin: Because psoriasis is such a big topic, this is going to be a two-part episode, in the first part, we'll talk about what psoriasis is, epidemiology, clinical manifestations, and comorbidities. For the second part, we will talk about how we manage psoriasis.

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Tom: All right. Let's just kick things off. Professor Foley, what is psoriasis?

A/Prof. Peter Foley: Psoriasis is a common chronic immune-mediated disease that presents primarily on the skin, but it's often associated with other systemic manifestations affecting many body organs, particularly the joints.

Alvin: How common is psoriasis, Peter?

Peter: The most widely accepted figure is that psoriasis affects somewhere between 2% and 3% of the general population.

Tom: What's the most common age of onset in psoriasis?

Peter: Psoriasis can commence or appear at any age, but it's often reported as being bimodal in onset, so classically late adolescence or early adulthood with a second peak of onset somewhere in the 50s or 60s, so it's not just young people, but it can occur at any age, including those over the age of 50.

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Alvin: That's really interesting, Peter. I often see patients who present at 50 or 60, and they're often astonished when you tell them that they've got psoriasis because that's when you first get it.

Tom: Here's our tip number one. Don't forget about late-onset psoriasis, just because someone hasn't had a history of psoriasis before, it doesn't mean that they can't develop psoriasis later in life.

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Alvin: What about stress? Can stress actually bring psoriasis out?

Peter: Stress is an interesting one, it's often said to trigger or aggravate psoriasis; however, a recent review reported that there is insufficient data to confirm the association between stress and psoriasis.

Alvin: Peter, we hear of a lot of things that can exacerbate the risk of developing psoriasis, can you tell us about some of these?

Peter: We know that smoking seems to be the most controllable environmental factor, so we know that patients who smoke are more likely to develop psoriasis and that's not just psoriasis in general, but particularly palmoplantar psoriasis involving the palms and soles, which can occur as a pustular form or a hyperkeratotic form. We also know that smokers tend to be more resistant to most of the treatments we have for psoriasis.

In addition, we know that alcohol consumption tends to correlate with psoriasis severity. It's debated whether severe psoriasis tends to encourage people to drink more, or whether people that drink more are more likely to develop psoriasis, but certainly, alcohol in moderation is the most one should consume. The other lifestyle or individual component that we know may contribute to psoriasis is obesity. Patients with psoriasis are more likely to be overweight or obese, and we know that obesity contributes to psoriasis particularly with the inflammatory chemicals that adipose tissues produce.

Infections, really, of any sort, can aggravate psoriasis, but streptococcal tonsillitis is particularly associated with guttate psoriasis but can aggravate other forms of psoriasis. We also know that HIV can aggravate or exacerbate psoriasis.

Alvin: Okay. For clinicians, the way psoriasis is diagnosed is usually clinical. Can you tell us, Peter, what does psoriasis actually look like?

Peter: As you mentioned, psoriasis is typically diagnosed clinically rather than requiring histopathological confirmation, the most common form of psoriasis is what's referred to as plaque psoriasis or chronic plaque psoriasis, and that form of psoriasis accounts for at least 70% and probably even more than that. Chronic plaques psoriasis presents as red, raised patches of skin called plaques, usually with overlying silvery scales.

Typically, psoriasis because it's an endogenous condition, occurs symmetrically on the body, so occurs equally on each side, as compared to an exogenously-caused dermatosis such as a contact dermatitis which is usually one-sided or an infection such as tinea, which may occur on just one foot.

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Tom: I've read that *psora*is a Greek word meaning to itch. How itchy is psoriasis?

Peter: Once upon a time, the teaching used to be that psoriasis was the non-itchy, red, scaly rash, whereas eczema was the itchy, red, scaly rash and that was one way to differentiate. More recent studies have shown that if you actually ask someone with psoriasis, "Are you itchy?" More than 80% of people say they have some itch with their psoriasis; however, it's not as severe as what is seen in conditions such as atopic dermatitis or scabies or urticaria.

Alvin: Peter, do you have any other tips that might make you more suspicious of psoriasis based on the clinical findings?

Peter: If someone presents with a red, scaly rash that typically is very well-demarcated, probably psoriasis should be at the top of one's list. Other factors that might contribute to thinking about psoriasis would include a family history of psoriasis, what's called the Koebner or isomorphic phenomenon, which is where psoriasis or other conditions spread in areas of injury or trauma.

The distribution is usually fairly typical, so psoriasis often occurs on the elbows or knees. Other areas that may be involved include other parts of the scalp and particularly nail disease which occurs in more than three-quarters of patients with psoriasis.

Tom: As you mentioned earlier that more than 70% of psoriasis are chronic plaque psoriasis, how else can psoriasis present?

Peter: In addition to chronic plaque psoriasis, psoriasis may present as guttate psoriasis, inverse or flexural psoriasis, pustular psoriasis, either localised on the palms and soles or generalised, erythrodermic psoriasis, or it may simply present as just nail psoriasis so simply involving the nails.

Alvin: Tell us about guttate psoriasis, Peter.

Peter: Guttate psoriasis or guttate means drop-like, often referred to as looking like drops of rain on sand. I often would explain that it looks like someone's got a paintbrush and just flicked it at an individual. There's a strong association with streptococcal tonsillitis, so often, younger patients develop a strep tonsillitis, and then anything up to a couple of weeks later, they present with small, red papules rather than plaques of psoriasis, much more common on the torso or trunk than on the arms and legs but can occur on the proximal limbs. It tends to occur really sudden in its onset, usually in childhood or young adulthood.

Tom: Does it then go away once the infection's gone away?

Peter: Whilst psoriasis is generally considered a chronic condition, the one form that may occur as a single episode is guttate psoriasis, so it's estimated that 40% to 50% of people with guttate psoriasis will have a single episode that will be treated or will resolve spontaneously and they'll never have another episode. Unfortunately, the other 50% to 60% of people, it's a forewarning that later in life they will develop usually more typical chronic plaque psoriasis.

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Tom: What about pustular psoriasis?

Peter: Pustular psoriasis can occur either as a disease that occurs just on the palms and soles, more and more being referred to as palmoplantar pustulosis because it can occur in isolation rather than in the setting chronic plaque psoriasis. Probably, best considered a comorbid condition because it's more common in people with psoriasis than in people that don't have it, but it can occur in isolation and as a generalised pustular form.

People with generalised pustular psoriasis are often quite unwell. They have erythroderma, meaning they're red often from head to toe. People that are erythrodermic tend to be metabolically unstable and hemodynamically unstable. We really have to watch what's happening with their electrolytes as well as their cardiac output. They also tend to lose thermoregulatory control, so hypo- or hyperthermia can develop in those patients. Erythrodermic psoriasis or generalised pustular psoriasis is usually best managed as an inpatient.

Alvin: What triggers can there be for pustular psoriasis?

Peter: The most common trigger certainly what's been seen in the past has been with the abrupt cessation of systemic corticosteroids. It's one of the reasons why we tend to not recommend using systemic corticosteroids for the management of psoriasis. Unfortunately, it can also be triggered off by infection so that confuses people. Someone is febrile because they have an upper respiratory infection or zoster or other viral infections, so they're febrile and they're unwell, but that's precipitating any inflammatory dermatoses, rather it being a systemic infection. One of the rare triggers is pregnancy.

Alvin: How is psoriasis diagnosed, Peter?

Peter: Usually the diagnosis of psoriasis, is fairly clear cut if patients present classically. If someone presents with red, scaly plaques on their elbows and knees, the diagnosis is made clinically. Sometimes though, particularly if the psoriasis is in atypical sites or they just have flexural psoriasis, or the psoriasis is not responding to therapy, then a biopsy and histopathological examination might be appropriate, but there's no other investigations that are required at this time.

Tom: We've covered many interesting points about the clinical aspects of psoriasis.

Tip number two: in dermatology, it is worthwhile spending a bit of time observing the rash distribution because that can give us a lot of clues to the diagnosis. Psoriasis is usually symmetrical and classically affects the extensor surfaces like the knees or elbows. Be sure to also look behind the ears, scalp, natal cleft, and the nails.

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Tom: Now we know that psoriasis doesn't only just affect the skin, can you tell us about the comorbidities in psoriasis?

Peter: A comorbidity is a condition that can occur in isolation, but is more common in the person with the primary diagnosis that you're concerned about. For psoriasis, the most common comorbidity is psoriatic arthritis. The generally accepted figure is around about one in three people with psoriasis will eventually develop psoriatic arthritis, but estimates range from as little as 5% up to greater than 40% of people with psoriasis. It all depends a little bit on the criteria that you use and how long the individual has had the psoriasis.

Generally, it's estimated that about three-quarters of patients develop skin psoriasis initially, and then joint disease or musculoskeletal symptoms somewhere down the track.

Tom: What would you look for in people with psoriatic arthritis?

Peter: Psoriatic arthritis can occur as a peripheral polyarthritis particularly affecting the fingers and toes, but it can also occur as an oligoarthritis affecting the large joints, elbows, knees, shoulders, hip. We often talk about peripheral arthritis, or it can be an axial arthritis or spondyloarthritides. We tend to separate the axial disease from the peripheral disease, but psoriasis can also affect the enthesis, so where tendons insert into joints. Enthesitis is a common presentation of psoriatic arthritis as is dactylitis or sausage digits.

Alvin: I have a lot of patients who have difficulty walking from plantar fasciitis which is enthesitis. Do you actually screen your psoriatic patients for arthritis?

Peter: I do screen my patients for psoriatic arthritis. A couple of clinical clues include involvement of the nails, involvement of the postauricular scalp and the gluteal cleft. We use a screening questionnaire. There are a range of screening questionnaires that really give a clue as to whether or not someone should be considered as having psoriatic arthritis. They're not diagnostic, but they're really a way of saying, well, this person doesn't have psoriatic arthritis or this person, we should consider it, and either investigate further or get other specialists involved.

Alvin: If you think someone has psoriatic arthritis, is it reasonable to refer patients on to a rheumatologist?

Peter: Psoriatic arthritis can cause joint destruction, and that can occur within six months of the onset of joint disease. It's really important to get on top of psoriatic arthritis early, whether that involving a rheumatologist or some dermatologists may feel that particularly if we're moving on to biological therapies because of the overlap between indications, then using an agent that will treat both skin and musculoskeletal symptoms would be the most appropriate way forward. Certainly, we do not hesitate to involve rheumatologists.

Tom: Cardiovascular disease seems to be quite a big thing in psoriasis. We've mentioned before about obesity being one of the risk factors for psoriasis. Are there any other risk factors related to psoriasis?

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Peter: There is some evidence to suggest that severe or moderate to severe psoriasis is in itself an independent risk factor for cardiovascular disease, both heart disease and cerebrovascular disease, but each of the conditions that we know are drivers of cardiovascular disease in addition to obesity, cigarette smoking, hypertension, hyperlipidemia, and diabetes are all more common in people with psoriasis.

Tom: Why is it important to address cardiovascular disease in psoriasis

Peter: One of the leading causes of excess death in patients with psoriasis is cardiovascular disease.

The systemic inflammation that we see in psoriasis, and in other inflammatory conditions such as rheumatoid arthritis or inflammatory bowel disease, just that chronic systemic inflammation with similar cytokines driving can lead to cardiovascular disease. If you actually look at the inflammatory cascade in cardiovascular disease, it is very similar to what we see in psoriasis.

Tom: Is there anything we can do to reduce the cardiovascular burden in people with psoriasis?

Peter: Certainly, we know that with the comorbidities, if we can reduce them, so if we can work on patient's weight, if we can treat their hypertension, if we can treat their diabetes and their dyslipidemias, then we're helping with the cardiovascular disease. Weight reduction or cessation of smoking will help with psoriasis but will also decrease cardiovascular risk or cardiovascular burden. Also, some of the therapies that we use for psoriasis, particularly methotrexate and the tumor necrosis factor inhibitors have been shown to decrease cardiovascular risk.

Alvin: Peter, one of the problems about skin disease is it stigmatises patients. We've all seen patients with very, very severe psoriasis who are psychosocially very impacted. I think historically, psoriasis has been particularly bad for patients, it was lumped in before germ theory with leprosy. This real fear of stigma in psoriasis is a real issue. Do you see psychological problems in patients with severe psoriasis?

Peter: Patients really with any form of psoriasis are more likely to have, in particular, anxiety and depression. It's particularly an issue if the psoriasis occurs on exposed sites, so if there's involvement on the backs of the hands or the nails or the face, it makes it very difficult for people because everyone else is aware of their condition. Though, whether it's the inflammatory load with severe psoriasis or whether it's the visible appearance, certainly, we know that those rates of anxiety and depression are higher.

Just about any patient with significant psoriasis will tell a story of where there has been a negative social interaction, particularly if, for example, that being in a restaurant, either as a customer or as serving in a restaurant, or if they're in retail, where people will want to interact physically, but they will recoil when they see the psoriasis present. That is particularly with this association that maybe it's a contagious condition, and I'll develop it.

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I think it's important really for any healthcare professional to realise how much of a psychosocial impact psoriasis has. The condition which is visible to others can see it occurs at the time that people are developing their social networks and their own personality, and it's visible, so it can occur as we've already noted, late adolescence, early adulthood. It is a really crucial time in people's personal development.

What these often results in is higher rates of unemployment, social isolation, and probably contributes to those negative lifestyle factors like cigarette smoking and alcohol consumption. We really need to have at the forefront of our mind just how much this condition impacts people's quality of life, which has been shown now in a number of studies to be as dramatic as having a diagnosis of cancer.

Tom: Here's tip number three: when we see psoriasis, don't forget to ask about the joint symptoms because of the association with psoriatic arthritis.

Cardiovascular disease is the leading cause of death in people with psoriasis, so optimizing these risk factors is crucial.

Also, remember that psoriasis is a visible disease and it causes significant psychosocial impact on those who are affected.

That's the end of part one of podcast on psoriasis. We would like to acknowledge our production team. Madi Chwasta for podcast editing, Peter Monaghan, and Joanne Coughlin for podcast support.

Alvin: We also want to thank Dr. Sunny Singh, general practitioner who helped us review the content, and of course Associate Professor Peter Foley for giving out his time. Thank you for listening to another episode of *Spot Diagnosis*. We hope it's been educational for you. Stay tuned for part two of psoriasis, where we'll be talking about the management of psoriasis.

We hope you have enjoyed this podcast. Remember, these podcasts are not meant to replace medical advice. If you have a skin condition that requires attention, we strongly encourage you to see your medical practitioner.

Tom: For those who would like to access some further information on this subject, we have placed a transcript together with some further education and information resources for you on our website. I also want to do a shout out for the GP education events that we run at the Skin Health Institute. Just go to spotdiagnosis.org.au.

Alvin: Please share *Spot Diagnosis* with your friends and colleagues. Rate and review us. Let us know what you think. We would really appreciate your feedback and any suggestions. Thank you for listening.

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