



BENCHSIDE DISPATCHES

POLYCYSTIC OVARY DISEASE

AN INTERVIEW WITH KANADE SHINKAI, MD, PHD

Kanade Shinkai, MD, PhD, is Associate Professor of Clinical Dermatology and Residency Program Director in the Department of Dermatology at University of California, San Francisco. She has taken an interest in Polycystic Ovary Disease or PCOS and its skin manifestations. PCOS is one of the most common endocrine conditions in women and has many skin manifestations; a woman with PCOS is very likely to see a dermatologist as the first health care provider when she presents for medical care. In fact, one in four women with PCOS will present to a dermatologist first. Patients present to dermatologists with common complaints, such as acne, hair loss, and hirsutism.

What does the latest research reveal about the cutaneous effects of PCOS on the skin?

Dr. Shinkai: What we've really tried to understand is what skin signs are actually most specific for PCOS and how we can pick these individuals out of the crowd to really know who needs to be worked up for this disease or even treated for this condition.

When we looked at a very large cohort of women with PCOS—it's one of the largest cohorts of women with PCOS in the world—we discovered that things like acne are not that helpful in identifying women with PCOS. That is to say that when a patient with PCOS who has acne comes to see a dermatologist, probably acne isn't going to be the thing that's going to trigger that dermatologist to do a work up, or shouldn't be. Rather, things like hirsutism as well as acanthosis nigricans, which is that velvety thickening of the skin that is often associated with hyperinsulinemia, are the most specific signs for PCOS. When we see those signs, those are the things that should be triggering us to work that patient up and raise our suspicion about PCOS.

What do we know about how the disease and its manifestations influence patients?

Dr. Shinkai: One of the other studies that we recently published showed that hirsutism has significant quality of life impact on patients. I think this is intuitively obvious to all of us, as hirsutism is often associated with a loss of femininity, especially in different cultures. One of the things we learned was that we see patients and we can first often just see their faces; it's not until we really un-gown the patient and really look all over. In fact, truncal hirsutism is actually the most specific sign for PCOS, and that's something we don't always look for. Additionally, women are very good at doing hair removal, so they might come to the clinic having removed all their facial hair, but often they have not removed a lot of their truncal hair. That's why that's a really important step of the physical exam for

dermatologists to take a look to make sure that we're really assessing a patient fully for hirsutism.

The second is that when we look at patients, we may not actually be the best judges of what hirsutism that patient might have. In fact, patients own self-evaluation is very important, because we found when we compared clinician scores and patient scores of their hirsutism using a quantitative scale, we discovered that patients often rate themselves higher, which is not a huge surprise. When there's a larger discrepancy in the clinician versus patient score, that often is associated with things like depression and quality of life impact. What we learned was that we really need to be asking patients to rate themselves, as that can be really important clues about how that condition's really affecting the patient and also their mental health well-being.

What has been the most important research findings in PCOS? Where is research headed next?

Dr. Shinkai: The research is really going in a lot of different directions. I think from a dermatological perspective, we're really trying to understand what are the best treatments for the different skin manifestations of PCOS. For example, is treating acne in PCOS different from just treating run of the mill acne?

What are the best modes of treating hirsutism? For example, we often recommend laser hair removal. Sometimes we recommend medical treatments, things like oral contraceptive pills or anti-androgen pills, like spironolactone, or both. The question is, is pairing laser hair removal and medical treatment actually better than either/or? We just don't know the answer to that question, so these are things that are really begging to be researched and discovered more.

The other is, what do skin signs tell us about the patient's overall health? From one of the studies that we did, we discovered that hirsutism or acanthosis nigricans, which are the specific signs for PCOS, are often associated with a lot of underlying systemic disease, including dyslipidemias, hyperinsulinemia, and glucose tolerance, so these are really important skin signs of things that are brewing inside. What we really want to make sure is that we're getting these women plugged in to primary care, to endocrine, to make sure these things are being addressed, and also try to figure out how we can maybe intervene sooner so that these women don't go on to have complications of type 2 diabetes and other issues that come up for these patients. ■

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