Patient Education for Melanoma Skin Cancer

Melanoma and Current Treatment Options

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TRANSCRIPT

Hello, my name is Dr. Michael Postow and I'm the Chief of the Melanoma Service at Memorial Sloan Kettering Cancer Center in New York City. It's my privilege to discuss with you today, recent advances in melanoma care. And as a medical oncologist, most of my attention is focused on patients with more advanced melanomas — usually stage two, stage three, and stage four melanomas. And the discussion today will be on new melanoma treatments and the ways that we think about this disease. But I really would encourage everybody to talk to their own individual doctors to discuss the specifics of their individual situation, and how some of this discussion may apply to that. Thank you again for the opportunity to discuss this with you.

So, this is a melanoma, and many of us think of melanomas as a kind of skin cancer. And while that is true, a lot of melanoma sometimes doesn't start in the skin. But this is an example of one that did start in the skin and you can see that this shows up in the skin as an abnormal-looking mole. And this mole has areas of darker pigmentation to it and some lighter pigmentation to it in, an irregular border. So, if you have any moles or darker-colored areas on the skin that are growing or changing, it's really important that you go to see your dermatologist right away so that they can do a biopsy of that and make sure that it's not melanoma because melanoma can be quite a problematic type of skin cancer if it spreads. And melanoma sometimes, in other situations, doesn't even start in the skin at all. So, if you have any kind of darker spot on the bottom of the hands or the bottoms of the feet, or even on the mucosal surfaces of the body, which are the inside of the mouth, the inside of the nasal passages, in the vulva vaginal region or in the rectal area — these are kinds of things that are worth bringing to a physician's attention.

So this is what it looks like in the skin. It's a cartoon of what's called a melanocyte. Melanoma is a cancer that comes from normal cells that live in the skin and other tissues called melanocytes. I'll spare everybody the excruciating detail of all of the science behind how a melanocyte, which is a normal healthy skin cell, becomes a melanoma. But for purposes of general understanding, melanocytes live in this bottom layer of the skin. And all these purple, fried-egg-looking things are different skin cells. And the melanocyte is at the bottom of the normal healthy skin and releases these little packets of material called melanin. And melanin is intended normally to protect your skin cells.

So when you get a suntan, for example, it's not good to get suntans, but when you do get a suntan, what happens is the melanocyte works in overdrive trying to protect the rest of the skin from excess ultraviolet radiation. And these little melanocytes, the least melanin, make your skin darker — that's kind of a protection for additional sun damage, and it's like a warning sign: “Put up your shield against additional ultraviolet light.”

But what happens is, over lifetime or even intermittently with that, if you have too much sun exposure in the context of skin melanoma, that can be a risk factor for these melanocytes causing melanoma and becoming rogue and spreading through the bloodstream of the lymphatic tissue, the lymph nodes or distant organs, and that's the problem of melanoma. These cells, called melanocytes, live in the skin — the epidermis, in this example — but they also live in other soft tissue areas of the body, including the linings of the tissues like the mouth and the nasal passages.

So, in the skin, this is what it looks like under the microscope. This is normal skin on the left, and you can see this pink little covering, this is a waxy coating on the outside of the skin, and these little pink and purple balls, those are the skin cells. And the arrows are pointing to the melanocytes that live at the bottom of the skin. And on the right. in Panel B, it shows these melanocytes are stained brown by a certain way of staining with an antibody to show where the melanocytes normally live in the skin. So these are cells at the bottom of the skin that, for whatever different reasons including ultraviolet exposure, become rogue due to excess ultraviolet damage or other genetic changes in the skin cells. And these melanocytes then become melanoma and that causes the disease melanoma.

So if we think about what is melanoma and how do we treat melanoma and what do we do if the melanoma spread from one place to the other, there are options including surgical resection or radiation treatment. But as a melanoma medical oncologist, I deal with the inside of the body and drugs that go through the whole body to treat patients and help their outcomes. I wanted to go over five different points of relevance that might be important in discussions of a diagnosis of melanoma with the medical oncologist, and those are the doctors that think about melanoma treatments for the whole body.

There are different treatments called immune therapies and I'll go through that in detail. Targeted type treatments that target certain mutations that might be abnormal in melanoma, like BRAF mutations. There are other mutations in melanoma, in addition to BRAF, that might be relevant for treatment options. There are other kinds of melanoma I alluded to a little bit earlier of the mucosal type of melanoma where the melanoma starts on the inner linings of the cheek or the inner nose passages or anal/rectal tissue. But melanoma can also originate in the back of the eye, and that's called uveal melanoma.

And then I wanted to end with a topic on clinical trials, and that's a way to get involved in new research and trying to hope to advance the field of melanoma treatment so that patients in the future, and even you for your best options, are thinking about all the potential treatment options that could be helpful at certain places along the melanoma treatment journey.