Photodynamic Therapy: Using Light To Fight Cancer Transcript

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Introduction to Photodynamic Therapy

Well. Hello, everybody. Doctor Karlfeldt I just wanted, this is one of the therapies that I do a lot at the carpel centers called photodynamic therapy.

And it's actually then using light in order to be able to, turn on mitochondria in the body, reduce inflammation. Also kill off pathogens, like viruses, bacteria, fungus, parasites, but also cancer cells.

You know, it's been heavily research how photodynamic therapy is very effective in killing, cancer cells. One of the issues has been, being able to then penetrate deeper into the body.

And being able to, use photodynamic therapy, more of an internal level rather than than just superficial. It's been mostly just things like melanoma skin cancers, where you apply a full desensitize there and then apply light onto that tissue and photosensitive or something that absorbs into the tumor more heavily.

And then it draws light to itself to increase the energy within the tumor, to kill off the cancer cells.

Treating Blood and Deeper Tissue with Laser Light

So I wanted just to kind of so that process has evolved. And this is the evolution right here is where we can then actually treat the blood stream, you know, using photodynamic therapy.

But we can also then go after tissue that is is deeper in the body and then deliver enough light into that body using laser light, you know, which is a, much more powerful form than just a simple LED, so we can penetrate deeper and then trigger them that oxidative, reaction, you know, creation of react, reactive oxygen species, then to kill off cancer cells.

So, this is what a machine looks like. And I'm just going to kind of show you, what what it, what happens. So here you have then you this machine that delivers several different colors, like you see here, you, here you have then the red color right here.

And so you can see that on the hand right there, the red. So when you introduce that then intravenously, you will then actually absorb blood passes by.

It will be treated by this light, you know. So it becomes in a very sterile environment and the blood will pass by this location about once every minute.

So in a 60 minute session, you'll be able then to treat your blood 60 times your whole blood volume, 60 times. So you get red. And I'll talk a little bit about the the effects and what it does.

And then you have other colors. And these are, just ones that I kind of wanted you to visually see. Like here we got, got green, you know, see the green right here.

So same way, you know, introduce that intravenous line.

How the Machine and Light Colors Work

You would use a needle like this and you would couple that arm to, the laser, you know, a laser cord. And that light would then travel into the needle.

It's a fiber optic needle. And then it will then treat the blood as it's passing by. So here you got get. Yeah, I think got

the green right here. And then I'm want to show you the other just because these colors look cool.

Yeah. So and then you have the blue right here. So just blue right there. Blue right here. And so the same. Yeah. It will treat then the blood assets passing by.

So so you can do this intravenously or let's say you have a tumor specific site. You can then introduce that put the needle and then kind of surround the the tumor with these, with these, laser needles, you know, optic needles and then get a lot of light into that tumor in addition to and you prepare it then with photosensitive eyes or so.

So there's a b, b high concentration of energy from that light. So this is what the machine looks like. And so the different colors. Yeah red really activates immune system.

Then the the green is more kind of a balancing. Yeah. For cardiovascular the red blood cells, you know, they absorb a lot of green. So it helps to energize the red blood cells a lot.

The blue very, it kills off bacteria, viruses, kills off a lot of things. Just the the blue light in itself. You can make that even more powerful by combining it with a photosensitive Tizer like riboflavin would make it even more powerful.

And so because then the riboflavin, which is just vitamin B2, will then attach itself to the pathogens, and then as the pathogens are flowing by and the arm, when we have the needle there, you know, they, they get, get all that juice, all that energy that, that actually kills them off.

So that's a very powerful way to clear off a lot of pathogens. And you can do the same. Yeah. Because one of the issues are circulating tumor cells. And we know we don't want those because they can go places and they can do things that we don't want.

So by treating the bloodstream you're then able to treat what is flowing by. And then also as you treat those circulating tumor cells, they will then break up into small pieces.

And then as immune system we'll see these small pieces. It can then mount then a specific antibody response to those small pieces.

Targeting Cancer Cells and Circulating Tumor Cells

And so now we've educated the immune system in regards to, what the, components are of those circulating tumor cells so that they can be very specific and very targeted in the antibody response against those circulating tumor cells that came from the cancer, from the tumor.

So it will be more efficient in going after that. So that's a beauty with using photodynamic therapy, is that in addition to the direct kill, it also educates immune system in regards to, you know, how to address this more efficiently.

It makes it more intelligent. And there there are other effects as well that that comes along with it. It has a strong what's called an Antiangiogenic.

So it kind of kills off the vasculature, the, the blood vessels that feeds a tumor, so that, you know, a tumor is not very efficient in, in its usage of energy.

So it requires a lot of resources. And that's why you see a huge amount of blood supply feeding that tumor. And by then killing off that blood supply, the tumor becomes very vulnerable because it is so inefficient.

And now, to kill off the blood vessels, it doesn't get what it needs. So then it starves and then dies. Or we can then push it even harder with other oxidative therapy.

If an individual does chemo or this type of therapy or high dose vitamin C or other type of oxidative type of therapies, it will be much more vulnerable and we can go after it much more strongly. So, so in addition to then, you

know, we talked about photosensitive sensitize.

So we have then the, the the red light you and there are certain photosensitive cells that are associated with it, you know, because there's certain chemicals that absorbs that light better than others.

This frequency like for instance, Chlorophyl, you know, absorbs a lot of red light. And you also have, like methylene blue is something that's used quite a bit.

And then for infrared, and if I would turn it on, you wouldn't see it. Anyways, I'm not going to turn it on, but it's part of the machine and viewed it with infrared is that it has a longer wavelength so penetrates much deeper.

Photosensitizers and Treatment Applications

And also, one of the more the most powerful photosensitive serves the non a nice version of ECG, which is helps to kind of because it's not a nice and liposomal form.

It accumulates in the tumor and then it stays in there for a longer period of time. That which allows a longer treatment period, to be able to go after it.

And so, by using the ICG, the nano, nice version of ICG. And then couple that with infrared, which is one of these diodes here. Then you're able then to create all that juice to kill off than the cancer cell.

So and then the blue light. Yeah. There, there are a lot of so we, we talked about the riboflavin, but vitamin C, for instance, curcumin, you know, all of them are photosensitive cells for the blue light.

So if, for instance, you were going to do a curcumin IB, which is one of the things that we do, you can do the curcumin IB and then follow up that with blue light.

And then the curcumin will function as a photosensitive, sir. And then you have the effect then just kind of using the blue light here. So, so this is what it looks like.

And as I mentioned you can do this intravenously. You can do that directly on site. You know, depending on where the tumor is. And you can also do that externally.

So you can have then a, like a showerhead with, with powerful laser that, that penetrate deeper than into, into the tissue to support the body, to kill, to kill cancer cells off.

And then the good thing is that it becomes very targeted so it doesn't destroy healthy cells. In fact, the healthy cells actually are benefit from it for these different colors.

Turns on the energy production within the cell, the mitochondria, within the mitochondria have something that's called, Etsy electron train, transport chain.

And so as electrons are moving through there, they're different substations, you know, calls complex one, two, three, four. And each color will help to support these different stations to move those electrons that cross, increase the energy, within healthy cells, to make them more resistant to cancer and also able to detoxify better and regenerate better.

So, just when you get a kind of a feeling for what it looks like, because I talk a lot about this, during all the different conferences and, and, summits that I do.

So, yeah, I hope you appreciated this.