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 Kalfeldt Center's called photodynamic therapy.

And it's actually been 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.

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 and more of an internal level, rather than just superficial.

It's been mostly just things like melanoma, skin cancers, where you apply a photosensitive and then apply light onto that tissue, and photosensitive is 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.

So I want to just to kind of so that process has evolved.

Treating blood and deeper tissue with laser light

And this is the evolution right here is where we can then actually treat the bloodstream, 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, which is a much more powerful form than just a simple LED.

So we can penetrate deeper and then trigger them that oxidative reaction, 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 happens. So here you have. Then this machine then delivers several different colors like you see here. Here you have then the red color right here.

And so you can see that on the hand right there red. So when you introduce that an intravenous lee you will then actually as a blood passes by it will be treated by this light, you know.

So it becomes an obvious 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 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. See the green right here. So same way introduce that intravenously. And you would use a needle like this. And you would couple that onto the laser laser cord.

Light colors and their therapeutic effects

And that light would then travel into the needle. It's a fiber optic needle. And then it will then treat the blood acids passing by. So here you get the green right here.

And then I 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 you know it will treat then the blood as its passing by. So so you can do this intravenous or let's

say you have a tumor specific site.

And you can then introduce that put the needle and then kind of surround the the tumor with these laser needles, optic needles and then get a lot of light into that tumor in addition to and you prepare it then with photosensitive.

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

And then the the green is more kind of a balancing 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 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 like riboflavin would make it even more powerful as 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 get all that juice, all that energy that actually kills them up.

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 asks you treat those circulating tumor cells. They will then break up into small pieces.

And then as immune system will see these small pieces, it can then mount then a specific antibody response to those small pieces.

Photosensitizers and deeper penetration

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 the beauty with using photodynamic therapy, is that in addition to the direct kill, it also educates immune system.

In regards to how to dress this more efficiently. It makes it more intelligent. And there are other effects as well that that comes along with it. It has a strong what's called an anti angiogenesis.

So it kind of kills off the vasculature, the blood vessels that feeds the tumor so that you know it. Tumors 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 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 of 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 than we can go after it much more strongly.

So in addition to then, you know, we talked about photosensitive. So we have them the red light, you know there's certain photosensitive that are associated with it.

You know, because there are certain chemicals that absorbs that light better than others. This frequency, like for instance, Chlorophyl 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 anyway.

So I'm not going to turn it on. But it's part of the machine. And beauty with infrared is that it has a longer wavelength, so penetrates much deeper. And also one of the more the most powerful photosensitive serves the non-interest version of ICG, 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.

Cellular energy support and closing remarks

That which allows a longer treatment period to be able to go after it. And so by using the ice g, the anonymous 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.

Then the cancer cell. So and then the blue light. Yeah. There are a lot of. So we talked about the riboflavin. But vitamin C for instance curcumin you know all of them are photosensitive for the blue light.

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

And then the curcumin will function as a photosensitive. 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 intravenous. You can do that directly on site depending on where the tumor is. And you can also do that externally.

So you can have then a like a shower head with powerful laser that penetrate deeper than into into the tissue to support the body 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 e.t.c. electron train transport chain.

And so as electrons are moving through there, they're different substations calls complex 123, four. And each color will help to support these different stations to move those electrons across, to increase the energy within healthy cells, to make them more resistant to cancer and also able to detoxify better and regenerate better.

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

Hope you appreciated this.