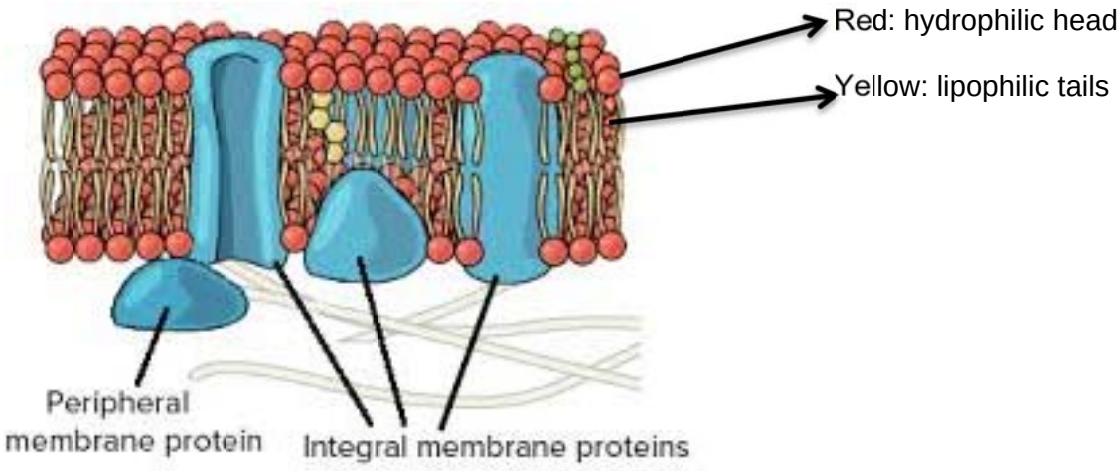
Can Plaquex® help prevent cancer? A thought experiment

By Anita Baxas, MD

While doing research for my next book, I came upon interesting information from three different sources that have no ties to each other. When I linked the facts of these three independent information sources, the thought came to me, that Plaquex® – Phosphatidylcholine – may be able to prevent cancer.

Let's start with the information from the first source: Dr. Bruce Lipton PhD describes his findings regarding cell membranes in his book *Biology of Belief.* The membrane is made up of two layers phosphatidylcholine molecules with their backs facing each other. The phosphatidylcholine molecule has a hydrophilic "head" and two lipophilic tails. The outer and the inner most layer of the cell membrane consists of hydrophilic heads and the lipophilic tails face each other making up the center of the membrane.



Dr. Lipton likened the membrane to a sandwich where the bread on top and the bottom represents the hydrophilic part and the butter inside the sandwich represents the lipophilic part. Embedded in this bilayer of phospholipids are sensory receptors where hormones and other substances dock on to and that also react to non-physical stimuli like EMF and thoughts. Then there are effector proteins that turn on the DNA to produce certain proteins that are needed. He collectively calls these proteins Integral Membrane Proteins or IMPs.

One such IMP is Sodium-potassium ATPase which shuttles three sodium ions (positive charge) out of the cell and in turn lets in two potassium ions (negative charge). This turns the cell into a constantly charging battery. As three positive ions go out and two negative ions go in, the inside of the cell gets a negative charge and the outside of the cell has a positive charge. This charge difference is called the membrane potential and makes the cell a battery whose charge is used to power biological processes.

The phospholipid molecules are arranged like soldiers and when the individual phospholipids move, they move together, uniformly and thereby keep up the integrity of the membrane, yet

can change shape to adapt to the environment. The uniform arrangement of the shape combined with the fluid movement capability is the definition of a liquid crystal.

Dr. Lipton explains that the selective shuttling in and out of substances through the cell membrane makes the cell membrane a semiconductor. As it's the IMPs acting as gates and channels selecting what goes in and comes out, the definition of a cell membrane therefore is *a liquid crystal semiconductor with gates and channels.* He discovered that this is the exact definition used to describe a computer chip. Researchers found that the cell membrane functions like a computer chip and when hooked up through a transducer (gold foil) to a screen, the electrical activity gives digital read outs on the screen.

But this is just a very interesting side note.

The important information is that the cell maintains a negative charge to function properly and it maintains it by shuttling out positive ions and shuttling in negative ones. It needs a specific IMP embedded in the intact cell membrane to do this.

The next information I stumbled upon was in the books by Dr. Jerry Tennant, MD called *Healing is Voltage* and *The Body Electric* by Dr. Robert O. Becker, MD.

Dr. Becker did a lot of research on Salamanders to see what happens on a cellular level when they regrow a missing limb. He measured the cellular voltage of healthy limb cells before and after amputating a limb from the poor Salamanders. He found that the normal voltage was – 10 mV. But after amputating a limb, the voltage shot up to + 25 mV which caused normal cells to dedifferentiate into adult stem cells out of which new limb tissue grew. Then the voltage drops to -30 mV while a new leg is grown. During that time the voltage gradually drops to the normal -10mV. So it looks like the increase in voltage with reversal of the charge from negative to positive is the stimulus that causes normal tissue cells to dedifferentiate into adult stem cells.

Dr. Tennant built on this information and discovered that cancer cells and placental cells in pregnant women basically react the same way. Both invade other tissues and organize their own blood supply through angiogenesis. Microscopically placental cells and cancer cells look alike and both secrete chorionic gonadotrophic hormone. So cancer is nothing more than the body making a placenta in the wrong place and at the wrong time. The stimulus to make a placenta is the cellular increase to a positive voltage. Normal cellular voltage in humans is -20 to -25 millivolts. When the cell needs to repair itself, the voltage even goes to -50mV. Dr. Tennant theorizes that if the voltage increases further than +25 to +30mV the adult stem cells continue to dedifferentiate to become cancer cells. When you insert enough electrons to return the voltage to as low as -60mV, the cancer cells should differentiate back into adult stem cells and then back into normal tissue cells.

He discovered that you can return cells into a state of negative voltage by eliminating electron stealers and apply electron donors. He provides information on the connection between acupuncture meridians and specific muscle groups that act as battery packs and tooth infections that cause the loss of electrons on tissues connected to the specific meridian. Although fascinating, I won't go into all the information he provides as the most relevant finding in this

thought experiment is that positive voltage turns cells into cancer cells by dedifferentiation of tissue stem cells.

As we saw from Dr. Liptons' information, the cell maintains negative voltage by the action of the Sodium-potassium ATPase. In order for this IMP to work correctly and efficiently it needs a healthy cell membrane to support it. And this is the point where the third information source becomes relevant. The phospholipid membrane gets damaged by environmental agents such as free radicals, toxic chemicals, heavy metals, high blood pressure, smoking, high levels of aldosterone, cortisol and adrenalin. The body's ability to replace damaged phospholipids diminishes with aging and therefore cell membranes lose structure and the embedded IMPs cease to function correctly. This may be a main cause of cellular voltage flipping to the positive side and initiating the formation of cancer cells.

O. Zierenberg and his group carried out comprehensive studies on the phospholipid pattern in lipoproteins after oral or intravenous administration to rats, rabbits and dogs. They administered radioactive labelled phospholipids and found that the intravenously applied phospholipids became part of the cell membranes in Lipoproteins. These Lipoprotein cells were able to hold more cholesterol than those without externally supplied phospholipids indicating improved function of the cell membrane when external phospholipids were applied.

So we know through these studies that externally supplied phospholipids integrate into cell membranes and improve their function.

Conclusion

In conclusion we can surmise that supplying phospholipids of the kind used in Plaquex® improves cell membrane function including the function of Sodium-potassium ATPase, and thus helps to maintain negative voltage in the cell preventing dedifferentiation of the cell into cancer cells.

As the title says, this is only a thought experiment. Retrospective studies need to be done with patients doing Plaquex® therapy over a long period of time and comparing their rate of new cancers to the rate of a matched control group.

Sources

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