About Insulin Potentiation Therapy (IPT) – Microdose Chemotherapy

Insulin potentiation therapy or IPT makes use of insulin as a sort of Trojan horse, to “fool” cancer cells into taking in vastly greater amounts of a toxic chemotherapy drug than do healthy cells. The therapy is based on the fact that cancer cells have an extraordinary appetite for glucose (blood sugar) and possess ten times the number of insulin receptors that healthy cells do, thereby enabling them to metabolize sugar at a much faster rate.

For this reason, when insulin is administered to a cancer patient at the same time as a chemotherapy drug, the multiple insulin receptors on cancer cells open wide and take up the chemotherapy drug at a much higher rate compared to healthy cells. This enables the therapist to achieve a lethal effect on the cancer cells many times greater than that felt by healthy cells. The therapist can therefore use a lower dose of the chemotherapy drug, sparing the healthy cells damage, while damaging cancer cells just as much as a high dose of chemotherapy would if delivered without the insulin “boost.”

In short, insulin multiplies the killing effect of a chemotherapeutic agent, enabling the use of lower doses and causing less damage to healthy cells.

Insulin was first used as a treatment for diabetes in 1921. By 1928, **Dr. Donato Perez Garcia of Mexico City, Mexico,** adapted the use of insulin to treat other illnesses, such as syphilis. His treatments centered on the glucose-lowering ability of insulin, which seemed to be beneficial for several diseases.

Dr. Garcia’s grandson, Dr. Perez, carries on the practice of insulin-based treatment and uses it for terminal cancer patients. In a staff training workshop at the Hospital Santa Monica, Dr. Perez outlined his method of using micro-doses of chemotherapy at the point of lowest glucose levels, which results in an exceptional uptake of the chemotherapy by cancer cells.

According to Dr. Perez, “I have long taught all my cancer patients that above all, cancer cells need sugar for the energy to divide and grow. In fact, cancer cells have from 10 to 100 times the number of insulin receptors that normal cells do. When the blood glucose reaches its lowest – which can vary from 25 to 45 mg/dl – the cancer cell is desperate for glucose.

“The introduction of minute amounts of chemotherapy, in conjunction with the glucose necessary to bring blood glucose levels back to normal, creates a concentration of the chemotherapy agent in the cancer cell because the extra amounts of insulin receptor sites on the cancer cells means they will receive many times the amount of glucose/chemo as the normal cell. This all makes such good sense to me. It is a way to use the science of chemotherapy that does kill cancer cells but under normal use also kills too many normal cells. This way we concentrate the action in the cancer cells.

“We have used this on many patients to date. Many of them reported, and doctors confirmed, shrinking of cancer mass. The lowering of blood sugar does not cause any side effects other than temporary sleepiness or weakness. All of our physicians feel very comfortable with this therapy.”

Chemotherapy drugs are powerful cell-killing agents, which is why they are mainstream American medicine’s preferred cancer treatment. In current medical practice, getting these drugs into the inside of cells where they do their work requires that they be administered in doses high enough to force them across the membranes of cancer cells.

A major drawback to this high-dosing strategy is serious dose-related side effects. This happens because chemotherapy agents do not discriminate between cancer cells and other normal cells in the patient’s body. They kill both kinds of cells, thus the side effects.

With the development of IPT it is now possible to avoid the dose-related side effects of chemotherapy, while at the same time increasing the effectiveness and specificity of these agents in killing cancer cells.

Further explanation of the IPT approach

IPT is a non-diabetic use of the hormone insulin to improve the effectiveness and delivery of standard medications dramatically. This slight modification of standard medicine could help many medications act like super drugs, with better results for many millions of patients.

Insulin is the hormone used to treat diabetes. Secreted by the pancreas in healthy people, insulin is a powerful hormone with many actions in the human body, a principal one being to manage the delivery of glucose across cell membranes into cells.

Insulin communicates with cells by joining up with specific insulin receptors scattered on the outer surface of the cell membranes. Every cell in the human body has some of these receptors, with there being from one hundred to one hundred thousand of them per cell. The interesting connection between cancer cells and insulin is that studies report that cancer cells actually manufacture and secrete their own insulin. Related to this is the even more interesting fact that cancer cells have ten times more insulin receptors per cell than any of the normal cells in the body. This fact creates a valuable opportunity because it significantly differentiates normal cells from cancerous ones.

Having ten times more insulin receptors than normal cells means that the effect of administered insulin will be ten times greater on cancer cells than on normal cells. With this difference, an effective dose of chemotherapy drugs, when administered at the same time as intravenous insulin, is able to penetrate the inside of cancer cells—selectively, with a sparing of normal tissues—and this can be accomplished using greatly reduced doses of the toxic chemotherapy drugs, effectively eliminating all their dose-related side effects.

The addition of insulin to a culture medium containing cancer cells has been shown to enhance the cell-killing effect of methotrexate—a commonly used chemotherapy drug—by a factor of up to ten thousand. This striking result was attributed to two effects on the cancer cells.

One was an effect of insulin to increase the trans-membrane transport of the methotrexate into the cell. The other was what the authors called “metabolic modification by insulin” within the cancer cells. It modifies the growth characteristics in tumors, making more of the cancer cells vulnerable to anticancer drug effects.

Just as cancer cells have their own independent secretion of insulin for unlimited access to the fuel they require, they also have their own independent secretion of something called insulin-like growth factor to provide them with an unlimited stimulus for growth. Cancer cells also have ten times more of the receptors for insulin-like growth factor on their cell membranes—just as for the insulin receptors.

The metabolic modification by insulin mentioned above results from the fact that not only can insulin join up with its own specific receptors on cell membranes, but insulin is also able to join up with the receptors for insulin-like growth-factor, and to communicate messages about growth to these cells. While it may seem highly undesirable for a cancer therapy to promote cancer cell growth, this is in fact a valuable effect of insulin in this instance. In IPT, insulin administration has an effect of causing the blood glucose to go down. This is called hypoglycemia. This hypoglycemia is an anticipated side effect of the insulin, one rapidly and effectively controllable with intravenous glucose infusions at an appropriate time, according to the IPT protocol.

Because it is possible to create a clear differentiation between cancer and normal cells using insulin, along with the biologic response modification insulin produces, conventional chemotherapy drugs are targeted more specifically and more effectively inside the cancer cells only, and this can occur with the use of greatly reduced doses of these cell-killing drugs. Cancer cells die, tumors shrink, and no side effects are caused in any other tissues. IPT appears to be an effective new way of treating cancer using nothing other than conventional chemotherapy drugs.

That the NIH lists the therapy as an acceptable mode of treatment speaks for its safety. As they put it, “IPT is 21st century medicine. Cancer treatment with IPT is reported to be gentler, safer,

more effective, less expensive, and with usually no side effects." **SOURCE: Alternative Cancer Research Institute**

Further Reading & References

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