



Insulin Potentiation Therapy (IPT) and Targeted Low Dose Chemotherapy (TLD) for Cancer in combination with Hyperthermia.

Targeted Low Dose Insulin Potentiation Therapy (TLD/IPT) is a procedure for targeting chemotherapeutic drugs directly to cancer cells, making the drugs *tough on the disease*. Targeted Low Dose Insulin Potentiation Therapy is considered as gentler on the patient than conventional oncology, **while targeting the cancer cell**. A lower dose of chemotherapy is used, thus less toxicity and generally fewer side effects for the patient. *Since we always combine low dose insulin potentiated chemotherapy with local or systemic whole body hyperthermia the effect of the treatment is even further potentiated, that means, that we get a very high response rate even in multi drug resistant cancer cases.* The side effects of this treatment form is so low, that patients can usually maintain their normal lifestyle during treatment and use **complementary therapies** to strengthen the immune system and the body's natural defense. Patients can also detoxify their bodies during our "integrative cancer therapy".

Low dose chemotherapy with a biological response modifier

Targeted Low Dose/Insulin Potentiation Therapy (TLD/IPT) is a non-conventional treatment protocol of cancer based upon the hypothesis that insulin may be used to potentiate the effectiveness of commonly used anti-cancer drugs. Because cancer cells have many more insulin receptors than healthy cells, when exposed to insulin, the cancer cells open these receptors and become more susceptible to low doses of chemotherapeutic agents. The chemotherapeutic agents are then given in much lower doses than in conventional therapies because of this insulin effect. IPT can also deliver chemotherapeutic drugs more frequently, also thought to allow a therapeutic impact, which can be augmented by a synchronic applied hyperthermia, while imparting fewer side effects and allowing patients a higher quality of life.

Conventional chemotherapy tends to flood the body with cytostatics so enough will enter the cancer cells to kill them. Each of our trillions of cells has a membrane, an outer skin,

that protects it from toxins. Standard chemotherapy must be given in large enough doses to force penetration through that membrane.

TLD/IPT, however, penetrates easily through the cell membrane because it goes hand-in-hand with sugar (glucose). Cancer cells, unlike healthy cells, need lots of glucose as fuel. Without it, they die. The membrane of a cancer cell is designed to take in a lot more glucose than healthy cells. Cancer cells are equipped with many more insulin receptors. So, if we combine a small dose of chemo drugs with insulin, the cancer cell takes in the cytostatics together with the sugar, which is pushed into the cancer cells by insulin. Using insulin allows us to differentiate the cancer cells from the normal cells. This is a significant advantage. And since the cancer cells are loaded with sugar, they become acidified and become very sensitive to hyperthermia, so that this combination is almost lethal for all kinds of cancers.

As part of our approach to an **integrative cancer support and treatment**, we may offer, where it is appropriate, targeted low dose chemotherapy in combination with hyperthermia and other biological modulators like high dose vitamin C, phytonutrients like Curcuma, Artemisinin, Green Tea, Indol3Carbinol etc. With the patient's involvement, assessing the risks and benefits, this promising therapy could change their life.

What are the benefits of Targeted Low Dose Insulin Potentiation Therapy (IPT)?

- IPT in combination with hyperthermia can be very tough on tumors, while it is regarded by us to be more gentle for the patient. Patients generally may continue to live a normal lifestyle while being treated.
- Using insulin allows us to differentiate the cancer cell population from the normal cell population. That means a lower dose of chemotherapy can be used and this is important since these drugs have considerable toxicity associated with them.
- TLD/IPT reduces chemotherapy side effects in normal cells.
- The so enhanced chemotherapy's combined with hyperthermia kills cancer cells more effectively. A 1981 study found that using insulin increased the killing effect of the chemo drug methotrexate by a factor of 10,000, for example [1] and there are also numerous showing, that chemotherapy is augmented by heat.
- This gentle treatment allows also the use of **complementary therapies** to strengthen the immune system, it is our body's best natural defense against the return of cancer.
- This treatment costs significantly less than conventional cancer therapies. TLD/IPT has been used for cancer worldwide since 1946; it has been used in the United States since 1997, hyperthermia is also FDA approved in combination with chemotherapy.

Please note that St. George Hospitals staff are MDs and are medical oncologists. The hospital is fully integrated in Health plan of the Federal Republic of Germany.



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