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Laser-Induced Interstitial Thermo Therapy  
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The utilization of laser light therapy has become increasingly important and prevalent over the last decade. This form of therapy uses a laser to treat cancer, relieve the symptoms of cancer, or to treat other illnesses. This therapy has mainly been used to treat superficial cancers, such as basal skin cell cancer. Laser therapy is generally used in combination with some form of chemotherapy or radiation therapy to help promote ablation of metastases.

Recently, a new technique called Laser-induced Interstitial Thermo Therapy was conceived in Europe. This form of therapy utilizes a Near Infrared Region (NIR) laser in combination with a MRI machine. This setup has mainly been used in clinical studies on Liver Cancer patients, but its implications are profound.

The MRI is used to target the area of the affected tissue, while a doctor, using local anesthesia inserts the laser into the affected region. The laser generates a thermogenic effect, which in turn heats the area. The end temperature generated by the laser approaches 110° C, which is enough to demolish not only the metastasis, but also the edge around it. The end result is coagulation of the tumor.

The results have so far been quite positive, with rates of success stated as being as high as about 97% six months post-surgery. Many times patients will need multiple cycles of the treatment, but this is based on how many, how large, and where the metastases are.

There are only a couple negatives about this therapy. The first is that the tumors cannot exceed 5 cm in diameter. Also, the region of therapy must not contain more than 5 metastases. Otherwise, this therapy has been by all accounts a success.

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