

Oncothermia Concensus

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Background: Oncothermia became a widely used and popular method in over 15 countries of the world. It is not a “gold standard” yet, but it is on the way to reach its stable and important position as a “fourth column” among the main oncotherapy modalities. It has wide-range applicability for every solid tumor in all possible localization, irrespective its primary or metastatic form. It could be applied together with all the known oncotherapy methods, and it is applicable in higher lines of the therapy protocols, even in the refractory and multirelapsed cases as well. Its applicability contains the curative and palliative approaches as well as it is well personalized to provide the optimal available treatment for the given case. Our objective is to propose a convention for various treatment conditions, to make a frame of the protocols which has to be filled up by the actual and well personalized details.

Methods: A comprehensive book [1], and numerous scientific and technical papers were published on oncothermia, [2], so the technical basis is stable. Oncothermia has collected during its 21 year existence a massive expertise and large data-collection, which are the basic of any convention for treatment protocols. The main factors to fix a personalized protocol are (1) kind of the complementary treatment, [decisional basic is the protocol of the “gold standard” therapy], (2) kind of the tumor entity, (3) kind of the personal status (4) physiological factors of the patient. The most frequently applied bimodal treatments are the oncothermia combined with chemotherapy or radiotherapy. While in trimodality it is combined with the radio-chemo-therapy.

Results: Protocols for combination with radiotherapy (RT) has to consider the blood perfusion of the tumor. When the tumor has adequate blood-perfusion than due to its high oxygen content it is sensitive for RT. In this case RT has to be applied first, immediately following by oncothermia with the highest tolerable power. This combination process is repeated every second day, (while the fractionated radiation could be on its own protocol every day). Oncothermia follows RT immediately (in 30 min range). In case of low blood-perfusion oncothermia has double role: increases the blood-flow to sensitize the RT and supports the cell-killing mechanisms. Fractionated RT follows oncothermia in this case in everyday application. In case of chemotherapy oncothermia has to be started when the highest chemo-perfusion is expected in the tumor-lesion to support the chemo-infiltration and the chemo-metabolism in the tumor. All the protocols have to be fitted to the request of the tumor-localization, and its duration has to be actualized by the stage and the progress of the cancer.

Conclusions: Oncothermia is a versatile treatment for various solid tumors, its applicability is not limited to specialties, its universal applications could be easily fitted to all the “gold-standards” as well as it could be a good complementary support for other oncotherapies too.

References:

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