

Hyperthermia: Thermal Trap and Athermal Solution

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Since hyperthermia has still not become an accepted treatment in oncology despite of 50 years of intensive research, the problems of hyperthermia method should be detected and analyzed.

The current hyperthermia concept is based solely on the idea of temperature effect. The lowest acceptance of this temperature-based hyperthermia is caused by the lack of its effectiveness. This is still not recognized by hyperthermia community and is masked by so-called “successful” clinical trials, which are uniformly biased. In fact, the temperature-based hyperthermia is an “error-based” treatment. The fair and unbiased estimation of temperature-based hyperthermia problems is necessary for further development of the method.

Further development of hyperthermia is connected with refusal of “thermal dogma” as a key point of the hyperthermia concept. Non-thermal mechanisms of electromagnetic treatment should be an engine of the further development of the method. Ways to reach acceptance and specific features of hyperthermia trials are discussed.