**Objective**

None of the established state-of-the-art treatments in malignant primary brain tumors, especially in glioblastoma multiforme (GBM), could show effective or commonly accepted curative potential until today. The editorial question of JAMA [1] in 2005 is actual even now: “Where to go from here?” Our objective showing feasible way to go, summarizing the results obtained till now by modulated electrothermia (oncothermia) in various clinics in EU.

**Method**

The treatment method is transiently applied modulated RF-current capacitive coupled at 15.66 MHz carrier frequency. Oncotherm, EHY2000® [2]. The applied protocol was unified step-up heating, 40-150 W RF-power with water-bolus cooling. Treatment is applied in combination with chemotherapy and/or radiotherapy or used as monotherapy if the conventional therapies fail. Data are collected from GBM and anaplastic astrocytoma (AA) published observational studies.

**Specialties of the method**

It is effective on low temperatures also.

Consequence: applicable for brain [9].

It is well focused [10].

Due to the low temperature, it is applicable near the brain.[11]

**Results**

Data published in ASCO at 2003 [3] shows 106 (m=9) median survival time (MST) for AA and 20m (n=27) for GBM patients. At newest ASCO presentations [4] 38.2m (m=53) and 20.3m (m=128) was observed for AA and GBM patients, respectively. With Groenemeyer University published [5] 70.2m (n=17) and 25.2m (n=19) as well as [6] 26.1m (n=40) and 16m (n=9) for AA and GBM, respectively. The very advanced relapsed cases show [7] 9m (MST=12) for GBM.

**Case reports**

CASE 1. (Groenemeyer Institute, [Witten-Heerde University], Bochum, Germany) [13]


CASE 3. (Dr. Dieter Hager, Bad Bergzabern, Germany [Blomed GmbH]) [14]


**References**


**Toxicity**

A well designed Phase I study shows the safety of the method [8]. The dose escalation has no extra hazard even in very frequent applications.

**Conclusion**

The results are strongly indicating the feasibility and the benefit of the oncothermia showing a valid treatment potential and safe application. Oncothermia is a potential way to escape from the present impasse situation and treat brain gliomas successfully. Performing prospective, randomized clinical trials in the future is mandatory. A well designed Phase I study is shown in our other paper [9].

**Acknowledgement**

Support of OncoTherm Ltd. is appreciated.

**References**


