

Brain glioma results by oncothermia

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Objective: None of the established state-of-the-art treatments in malignant primary brain tumors, especially in glioblastoma multiform (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 to show a feasible way to go, summarizing the results obtained till now made by modulated electro- hyperthermia (oncothermia) in various clinics in EU.

Method: Data are collected from GBM and anaplastic astrocytoma (AA) published observational studies. The method is transcranially applied modulated RF-current capacitive coupled at 13.56 MHz carrier frequency, (Oncotherm, EHY2000+) described in details elsewhere [2]. The applied protocol was unified step-up heating, 40-150 W RF-power with water-bolus cooling. Treatment is applied in combination with chemo- and/or radio-therapy or used as monotherapy if the conventional therapies fall.

Results: On brain-gliomas, the Groenemeyer Institute (Bochum Germany) was active [3], [4], [5], [6], [7], [8], [9], together with the BioMed Clinic (Bad Bergzabern, Germany), [10], [11], [12], [13], [14]; as well as the Empoli University had publication, [15]. Presently two German Universities (Regensburg [Prof. Bogdahn] and Heidelberg [Prof. Wick] are working on prospective clinical study on brain gliomas with hyperthermia. A dose escalating Phase I clinical study was made on Neurology Clinic, University of Regensburg, showing the safe process in the brain as well, [16]. The safe treatment could be shown by spectacularly documented near-eye cases, when the tumor disappeared by the oncothermia treatment, while the eye remained unhurt, intact from the treatment [17]. A well designed Phase I study is shown in other paper [18]. To see more evidences we show the retrospective data of independent clinics [19], having the same oncothermia protocol. The data are well correspond to each other and significantly higher than the data of the large international databases.

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.

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