

Co-administration of electrohyperthermia and bevacizumab in non-small cell cancer: A case presentation

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The backbone of therapy in non-operable non-small cell lung cancer (NSCLC) is systemic treatment. The principle goal is to prolong survival with the least toxicity keeping in mind the importance of patients' quality of life. Bevacizumab (bev) has been accepted as first line and maintenance therapy in NSCLC. Bev can be added safely to several chemotherapeutic agent and radiation therapy, however there is no data on co-administration with thermotherapy. Only scarce data exist about loco-regional thermotherapy in regard of prolongation of survival, but it can be used successfully in symptom palliation. Electrohyperthermia is a form of thermotherapy using electromagnetic field.

A male patient was operated for stage III NSCLC in February 2008. He rejected adjuvant chemotherapy. After one mono-localized (hip bone) osseal metastasis appeared in June 2009. In July 2009 a combination therapy of paclitaxel/carboplatin (to November 2009, six cycles all) and bevacizumab plus zoledronic acid was introduced, which stabilized the disease. Hyperthermia (HT) has been added in November 2009 by the request of patient. He was given HT three times a week with the maximal tolerated dose of 70W (EHY 2000®, Oncotherm Ltd, Pagy, Hungary, 20 cm electrode). Since that time no new adverse event emerged, the patient's pain diminished. The patient insisted to continue HT, although it was voluntary and without a proposal of his physician.

In this case HT did not compromise bevacizumab efficacy, and it makes probable that they can be co-administered safely.