The first experience of the local electro-hyperthermia (oncothermia) application in Russia

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Russian Scientific Centre of Roentgenology and Radiology carries out hyperthermia of oncologic patients, predominantly with gynecologic cancer, for a relatively long time. In particular, we used combination of radiotherapy with modern laser-induced hyperthermia.

At the same time, about a half-year ago we started clinical research of application of local electrohyperthermia (oncothermia) in combination with radiotherapy and chemotherapy using still the only in Russia oncothermia unit "EHY2000" (Oncotherm, Hungary). During this period, we performed a special treatment of 18 patients with various malignant neoplasms, mainly with gastrointestinal tumors and disseminated breast cancer, with this device.

Hyperthermia combined with radiation therapy was applied for 10 patients, combined with chemotherapy for 2 patients, and hyperthermia alone for 4 patients.

Despite of it’s too early to make final conclusions, the first results obtained clearly indicate that combination of oncothermia with radiation and/or chemotherapy causes a very noticeable improvement of immediate and near outcomes of the treatment, and that application of oncothermia alone favours obvious improvement of life quality of the patients, mainly due to relief of pain syndrome.

With all this going on, any negative impact on the condition of the patients treated with this unit was not observed.

In general, these preliminary results have enabled us to extend the area of application of local electrohyperthermia at our Center for now, and to turn to the targeted research on its use, particularly as adjuvant treatment of malignant tumors of the lungs and brain, as well as pre-surgery neoadjuvant therapy of locally advanced breast cancer.