Experience in the treatment of liver metastases with special reference to the consequences of interruption of long-run treatments

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Abstract
Approximately 800 metastatic liver cases were treated with oncothermia in our department. Many of them had long-time, cumulatively, huge number of treatments handled the disease a chronic for years. We investigated the long-time effects of the treatments, together with them interruption of the treatment serial for a few weeks. We are reporting a typical case: mammary carcinoma with liver metastases. The metastatic lesion was treated for four years, but the termination of the treatment for two months was fatal at the end.

Introduction
Our department had the opportunity to integrate oncothermia treatments into the treatment flow of oncological patients since 2001. We have treated nearly 1000 patients of whom 80 percent had malignant liver lesions, primary liver tumor or various liver metastases. Regrettably, not only the medical and the technical aspects but the patient`s financial background have had a role when professionals are selecting the available modalities. We selected a subgroup of patients into a study (will be published elsewhere) who had had at least 60 treatments, investigating the effect of the long term treatment and its interrupts - at least 2weeks- on the overall local outcome (clinical response). In this subgroup of patients with liver lesions oncothermia was integrated into a combined treatment regime with chemotherapy. Only bimodal therapy was used, no radiotherapy was applied. The complementary oncothermia was administered immediately after the chemotherapy. The patient`s status was evaluated with standard laboratory check-ups and imaging modalities. The frequency of the tests was determined according to the Hungarian Social Security guidelines taking into account the overall condition and complaints of the patient. The case study to be presented here is a patient who had two times complete remissions confirmed with imaging modalities -CT, PET, US- and had oncothermia treatments temporarily terminated. Relapsing of the tumor-growth was observed at both times, despite the continuous standard oncological care. In the inspected group of patients the malignant disease was handled like usually for chronic ones. The cases where the regular oncothermia treatments were interrupted – for more than two weeks – the diagnostic check-up showed progression of the lesions, despite the ongoing conventional chemotherapy. We are giving a case report in details showing the chronic treatment process for liver metastasis from mammary carcinoma.

Report
Mammary carcinoma of the female patient was discovered by a routine mammography when she was 34 y old. Breast-conserving surgery was successfully performed (R0) and post-surgical radiotherapy (50 Gy [fractionated on 2 Gy] plus 10 Gy electron boost) as well. During the diagnostics liver metastasis was discovered. Chemotherapy was started: Taxotere + Epirubicine. (see Figure 1.) Oncothermia was started with the device EHY3000 (Oncotherm GmbH, Germany), and 49 sessions were given by 60 W, 60 min, twice a week.

Figure 1.
During the oncothermia treatment regression was observed continuously and two month after finishing the oncothermia a PET/CT detected no evidence of disease (NED). The next checkup also found complete remission NED state, but a year later relapse was detected in the liver (see Figure 2.).

Chemotherapy Taxotere +Xeloda followed by Taxotere + Paraplatin were administered, and complementary oncothermia 24 sessions once a week. A robust regression was observed in the follow-up period for one year (see Figure 3.).

When oncothermia was terminated, soon relapse was detected in the liver again with multiple lesions. The oncothermia was applied (60 W, 60 min, twice a week, 23 sessions), and the disease was stabilized. Oncothermia was terminated again, and only chemotherapy was applied (Taxol+ Gemzar). Rapid progression of the disease was observed (Fig. 4.), which led to exitus.

**Conclusion**

Oncothermia can be applied for a long time, it handles the malignant liver tumor as chronic disease, but it should be continued during the whole chemotherapy course, or at least until the second negative control (2nd NED). Question arises: when should we to stop the oncothermia treatments and what diagnostic modality is suitable to confirm that there is no need for further treatments? The work is in progress.