

ESVONC Annual Congress

Abstract Submission Form

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Submission deadline 31st January 2009 by email to mb673@cam.ac.uk

preferred : oral paper

Abstract Title: First veterinary clinical results of electromagnetic hyperthermia (Oncothermia[®]) as a single modality and the combination with fractionated Cobalt irradiation.

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Objective: Advantageous thermal and induced non-thermal effects of electromagnetic hyperthermia in oncology is known for decades. This ever-developing technique has been utilized in human oncology for a long time but surprisingly no veterinary clinical data are available.

Material and Methods: We applied capacitive coupled modulated 13.56MHz radiofrequency method (oncothermia OT). OT was provided as single treatment in 6 cases, and in a combination with fractionated Cobalt irradiation in 18 cases. Superficially located skin tumors (mastocytoma 7 cases, 2 histiocytomas), 5 malignant oral tumors (3 melanomas, 1 carcinoma), 3 osteosarcomas, 2 nasal cavity adenocarcinoma and 1 insulinoma were treated in dog patients and 2 feline mammary carcinoma and 3 soft tissue sarcoma cases were enrolled to the study.

Results: Single OT resulted significant tumor size decrease 2 out of 6 cases, 3 stable diseases and 1 progression. Cobalt irradiation followed by OT resulted 3/18 tumor-free status, 12/18 partial remissions, 2/18 stable disease, and 1 progression. Side effects: erythema (2 cases), necroses (2 cases) occurred at the learning phase. Later on we could prevent these side effects with the constant superficial and deep temperature control. The 30 minutes treatment period needs anaesthesia in most of the cases.

Conclusion: We concluded that local OT could be a useful tool as single antitumoral modality but even more clinical utilities could be reached in a combination with radiotherapy (maybe with chemotherapy as well) by the local increase of the blood-perfusion. Further clinical studies needed to implement this novel technique into veterinary oncological practice.

General Member

Please return **ABSTRACT** form by **31st January 2009** to:
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