

**Abstracts of the  
17<sup>th</sup> MASCC International Symposium**

# SUPPORTIVE CARE IN CANCER



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Cancer patients and healthy controls completed a Brief Fatigue Inventory (BFI). Cancer patients could not be on antidepressants, had Hgb > 10% and were at least 4 weeks from the last chemotherapy or radiation treatment. The relative decline in handgrip and elbow flexion force was measured pre and post fatigue. Results: The relative decline in hand grip force, elbow flexion force, and brachioradialis muscle M-wave pre and post fatigue were not significantly different. However, twitch force with fatigue demonstrated greater muscle reserve in cancer patients. Discussion: The relative decline in muscle force at the onset of fatigue was similar for cancer and normal individuals. Overall, muscle strength was reduced and the time to onset of fatigue shortened with CRF. Electroencephalographic (EEG) correlates are being analyzed. Conclusions CRF is associated with reduced recruitment of motor units at the onset of fatigue. CRF appears to be of central origin.

#### 11-072

##### **Fatigue in Patients Receiving Radiotherapy After Breast-conserving Surgery.**

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Fatigue is one of the most frequent symptoms experienced by cancer patients. Fatigue adversely affects the quality of life. Fatigue may be caused by cancer itself, it may be also associated with treatment. The aim of the study was to assess the level of fatigue during and after adjuvant postoperative radiotherapy of breast cancer patients. 50 patients (age 33–76 years) with early breast cancer were recruited between May and October 2004. Fatigue intensity was measured according to 10-score visual analog scale (VAS, 0-no fatigue, 10-fatigue as bad as it could possibly be) before the start of adjuvant postoperative radiotherapy, once a week during radiotherapy, 14 days and 3 months after radiotherapy (48 Gy/24 fractions/5 weeks; 12 patients received boost 10 Gy/5 fractions/1 week with tumor-bed). Over half of the patients (58%) demonstrated no fatigue before the start of adjuvant postoperative radiotherapy and there were no differences between patients with or without previous chemotherapy or hormone therapy. Fatigue intensity increased gradually during radiotherapy. It was highest in the last week of treatment. 14 days after the end of radiotherapy fatigue intensity was still higher than before treatment, but 3 months after it was lower than the pretreatment level (mean fatigue-VAS was 1.18, 2.42, 1.46 and 0.62, respectively). However, 15% of the patients defined their fatigue as 2 or more in VAS three months after radiotherapy had ended. About 1/4 of the patients reported no fatigue during radiotherapy. Increased level of fatigue was associated with an increased need of rest. Patients with pain (pain-VAS 1 or more) manifested higher fatigue level in comparison with individuals without pain (mean fatigue-VAS 3.22 vs 1.42 in the last week of treatment). There was association between fatigue level and radiotherapy-related skin toxicity—patients with strong acute skin-reaction demonstrated higher fatigue level. Older patients (>60 years)

estimated their fatigue in the last week of treatment on lower level than younger patients (fatigue-VAS 1.80 vs 2.85).

#### 11-073

##### **One Biophysical Option in Fatigue.**

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While studying fatigue’s biophysical peculiarities they were paid less attention than other aspects. Meanwhile such information could add a lot to therapeutic programs. We present data on electrophysiologic characteristics of some acupuncture meridians in patients (pts) with fatigue related to illness and/or treatment. 46 pts (women 25, men 21, mean age  $54.6 \pm 3.3$  years, range 39–79 years) with morphologically proved malignancies of various nosological forms were enrolled after informed consent. The cutaneous electroconductivity was measured in representative points on routine Nakatani method with the device RISTA on SCENAR-technology presented in our previous works (Zaidiner, 1999; Zaidiner, Grinberg, Vorozheikina, 2003). In 41 of 46 pts (89.1%) significant ( $p < 0.05$ ) decrease of activity scores on digestory and lung (L, LI, SI) meridians were revealed; the same was with P-meridian which allocates to cerebral autonomic functions. The scores on these meridians didn’t exceed 20 whereas in healthy people they’re above 40... 50. 37 of 41 pts had severely ( $p < 0.001$ ) decreased K-meridian scores which were  $< 15$ . “Physiologic range” was also lower than this level of healthy man. Chinese acupuncture concepts attribute such decrease to the suppression of body’s nutritive function provided with digestive organs and lungs. The body internal energy resources (which are governed with kidneys) also run out; besides there’re disorders in immunoendocrine status regulated by the cerebral centers. “Physiologic range” decrease as illustration of cancer fatigue summarizes these disorders. We found the differences with chronic fatigue syndrome: its “physiologic range” is on the level of 30...50 and score changes concern Sp- and, to smaller degree, P-meridians. Our results confirm fatigue’s energetic exhaustion and permit acupuncture formularies to be suggested for the supplemental therapy. Such suggestions will be tested in accordance with evidence-based medicine rules.

#### 11-074

##### **Music Therapy (MT) in Psychological Support for Fatigue.**

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In cancer fatigue psychocorrection MT hasn’t so far enough been used in spite of its well-known psychodynamic effect. In this connection we would like to present data on MT usage for psychological support in rehabilitation concepts. 117 patients