Conference Abstract Free

The trajectory of cancer-related fatigue throughout lung cancer treatment and its association with physical activity

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Abstract

Background Cancer-related fatigue (CRF) is a common, debilitating symptom in non-small cell lung cancer patients. We aimed to investigate the impact of different treatments on CRF and the role of physical activity (PA) during treatment.

Methods This observational study assessed fatigue at diagnosis and 12 weeks after start of treatment via the Multidimensional Fatigue Inventory (MFI-20). ΔMFI-20 was compared across different treatments. Patients were categorized by PA levels during treatment (1 week accelerometery, during hospitalization and/or mid-treatment)(average step count <3000, 3000-5000,>5000 steps/day).

Results A total of 62 patients (66±8y, 66% male) were included. Fatigue significantly increased more in those receiving surgery and (neo-)adjuvant therapy (n=12) vs. surgery alone (n=29)(ΔMFI-20: 16±17 vs 0.3±13, $p<0.05$). The increase of fatigue in non-surgical patients (n=21) was not statistically different from those receiving surgery (ΔMFI-20: 6±19, $p=0.41$). PA during treatment was 3695±2288 steps/day. Patients engaging in higher PA during treatment (>5000 steps/day) tended to have lower increases in fatigue compared to those with lower PA (<3000 steps/day), $p=0.06$ (Fig.1).

Conclusions Fatigue increased most in patients receiving surgery and (neo-)adjuvant therapy. PA during treatment was very low and tended to attenuate fatigue increases.

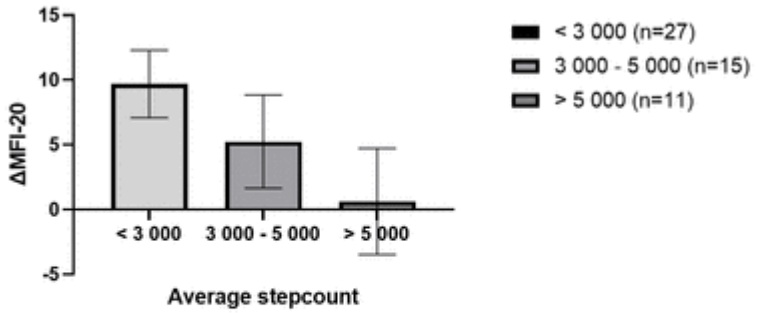

Figure 1. Changes in fatigue levels (ΔMFI-20) for 3 activity groups during treatment. Data presented as estimated marginal means (least square means) and SEM, adjusted for baseline MFI-20 score, sex, functional exercise capacity (measured with 6MWD) and cancer treatment. MFI-20: Multidimensional Fatigue Inventory.

Footnotes

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This article was presented at the 2025 ERS Congress, in session “Moving more: physical activity and lifestyle in chronic lung disease”.

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