

TITLE

Exploring the Multifaceted Nature of Fatigue Phenotypes Across Diagnoses and Disease Trajectories: Insights into Physical Inactivity, Sleep Impairments, and Quality of Life.

INTRODUCTION

Fatigue is a prevalent and debilitating symptom affecting individuals with various chronic conditions. Among these, patients with the autoimmune disease myasthenia gravis (MG) and those diagnosed with cancer are prime examples. Patients with MG report elevated levels of fatigue compared to the background population. Patients with cancer frequently (up to 80%) report experiencing cancer-related fatigue during and after active treatment. However, fatigue is not merely a symptom but a complex phenomenon tied to factors like sleep quality, physical activity, and overall health-related quality of life.

This shared experience of fatigue between these two groups highlights a common challenge. We suggest that an improved understanding of the complexities of fatigue in these patient populations can offer valuable insights for managing fatigue.

OBJECTIVE

To investigate the characteristics and manifestations of fatigue across various medical diagnoses while concurrently exploring the impact of critical factors such as physical inactivity, sleep disturbances, quality of life, and potentially relevant biomarkers.

Study 1: Exploring the Multifaceted Nature of Fatigue Phenotypes Across Diagnoses and Disease Trajectories

Study 2: Fatigue experienced during or after treatment and its impact on daily life, e.g., physical activity.

Study 3: Patient-reported sleep data and ActiGraph sleep measurements

Study 4: Fatiguability in respiratory muscles

The project uses a mixed methods design, including quantitative and qualitative data sets.

MATERIALS AND METHODS

Patients (n=900) (breast, prostate, lung, colon, head and neck, brain, bladder, ovary, or leukemia cancer) are recruited from the cancer-specific team. Patients will receive a link for a survey set up in REDCap. The survey includes questionnaires for fatigue (MFI-20), physical activity (SGPALS), sleep disturbance (PSQI), depression and anxiety (HADS), pain (VAS), and health-related quality of life (SF36). The patients will receive questionnaires repeated times over one year. For the qualitative part, 20 patients with MG and 5-8 patients from each cancer diagnosis will be recruited for one semi-structured interview.

Clinical implication

Understanding the unique characteristics of fatigue will enable healthcare providers to develop tailored interventions and treatment strategies. Patients can receive more targeted and effective fatigue management, potentially improving overall health outcomes. This research may pave the way for further investigations into fatigue across a broader spectrum of chronic conditions. It can serve as a foundation for future studies to develop innovative interventions for fatigue management.

Daily project manager: Postdoc Linda Kahr Andersen, Copenhagen Neuromuscular Center, phone: 35458976, e-mail: linda.kahr.andersen@regionh.dk

Research team: Professor John Vissing, Copenhagen Neuromuscular Center. Senior Researcher and Associate Professor Karin Piil, Dept. of Oncology. Chief nurse, Katrine Løppenthin, Dept. of Oncology.