powered by

dkfz.
GERMAN
CANCER RESEARCH CENTER
IN THE HELMHOLTZ ASSOCIATION

Contribution ID: **147** Type: **1 - Scientific Poster**

Exercise training program during and after treatment in lymphoma pediatric cancer population (StaiBene3.0! Plus Project)

Wednesday 22 July 2026 12:20 (20 minutes)

Pediatric oncology is an area in which pharmacological treatments can lead to significant reductions in physical capacity, muscle strength, and overall quality of life. In recent years, adapted physical exercise has emerged as a safe and effective complementary intervention for oncology patients, although the literature still offers limited evidence. For this reason, the present study aims to evaluate the feasibility, safety, and sustainability of a personalized exercise program specifically designed for pediatric and young adult patients diagnosed with Hodgkin and non-Hodgkin lymphoma, throughout the different phases of their therapeutic pathway. The sample consisted of nine participants, aged between 13 and 16 years, recruited at the Division of Pediatric Hematology-Oncology at the University Hospital of Padua. All subjects underwent a functional assessment at T0 and T1. The tests performed were the 30" Sit-to-Stand Test, 3' Step Test, Handgrip Test, Chair-Sit-and-Reach Test, and Flamingo Balance Test. Perceived fatigue was also recorded for each test using the Borg scale. Each participant followed an adapted training program including mobility exercises, muscle strengthening, and balance activities, all tailored to individual clinical conditions and the current phase of treatment. Despite the notable limitations encountered during the study, preliminary results suggest that the program is well tolerated, does not lead to significant adverse events, and shows good adherence among participants, indicating strong feasibility. Furthermore, the ability to modulate the training sessions allows for sustainable implementation even in the presence of clinical variability typical of the oncological pathway. In conclusion, adapted physical exercise is confirmed to be a safe and potentially effective intervention to support the physical and psychological well-being of pediatric patients with lymphoma. This study contributes to the development of operational protocols aimed at integrating motor activity into oncological care.

Keywords

Pediatric oncology; Adapted physical exercise; Lymphoma; Feasibility

Conflict of Interest & Ethical Approval

yes

Abstract submitters declaration

yes

Author: Dr BALDO, Elisabetta (Department of Biomedical Sciences, University of Padova, Italy)

Co-authors: Dr TRUNZO, Alessia (Department of Biomedical Sciences, University of Padova, Italy); Prof. MORO, Tatiana (Department of Biomedical Sciences, University of Padova, Italy); Prof. BIFFI, Alessandra (Pediatric

Hematology, Oncology and Stem Cell Transplant Division, Padua University Hospital, Padua, Italy); Dr ROSSI, Bartolomeo (Pediatric Hematology, Oncology and Stem Cell Transplant Division, Padua University Hospital, Padua, Italy); Dr PILLON, Marta (Pediatric Hematology, Oncology and Stem Cell Transplant Division, Padua University Hospital, Padua, Italy)

Presenter: Dr BALDO, Elisabetta (Department of Biomedical Sciences, University of Padova, Italy)

Session Classification: Poster Session