Results: According to the hypotheses of this study, it is expected that the proposed program of videogame-based interventions will improve neurocognitive and other wellbeing parameters in the intervention group.
Conclusions: This study aims to improve the quality of care for patients who have survived a cancer disease by detecting sequelae that have so far been poorly attended, and by proposing a gamification-based intervention program that is effective and attractive for this population.

Disclosure of Interest: None Declared

EPV0699

The winners project: neuropsycological changes after a video game-based training program in pediatric cancer survivors. a case report

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Introduction: Children who have undergone an oncological process and have received treatment with chemotherapy or radiotherapy on the central nervous system may have significant neurocognitive sequelae. Some video games have shown neurocognitive benefits in people with impairments in different areas, such as attention or memory.
Objectives: This work aims to demonstrate the benefit of a video game-based training program to improve the neurocognitive profile in a child survivor of cancer.
Methods: The patient is a 9-year-old female who was diagnosed with acute lymphoblastic leukemia at the age of 4 years. She received routine treatment of this disease by chemotherapy, including high-dose chemotherapy (with blood-brain barrier crossing) and intrathecal chemotherapy. She is currently 3 years after the end of treatment.
The Continuous Performance Test 3 (CPT-3) (sustained attention/vigilance) was administered before and after a multifaceted training program consisting of playing 3 video games for 12 weeks, as follows: a brain-training game (4 days per week, 7-12 minutes per day), a skill-training game (2 days per week, 10 minutes per day) and an exergaming game (2 days per week, 10 minutes per day).
Results: Prior to intervention, the patient had 3 atypical z-scores on the CPT-3 (z scores: mean = 0, S.D. = 1), with a pattern compatible with ADHD (omissions z = 1.2; hit reaction time z = 3.4; hit reaction time block change z = 1.2). After intervention, she had only an atypical z-score (hit reaction time z = 3.6), with a pattern compatible with slowing, without ADHD.
Conclusions: The neuropsychological evaluation of this patient showed an improvement in his attentional pattern on the CPT-3 after the video game-based training.

Disclosure of Interest: None Declared

EPV0700

Discrepancy between subjective perception and objective cognitive performance in attention assessment within the winners project for cancer survivors. a case report

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Introduction: Paediatric cancer survivors have a risk for neuropsychological impairment due to the disease and the treatment received. These affections have been neglected in the follow-up of these patients. It is important to identify the most valid outcomes in the evaluation of neurocognitive sequelae in childhood cancer survivors.
Objectives: This work aims to compare the results obtained between subjective perception of caregivers and objective cognitive performance based on validated attention tests.
Methods: In a randomized controlled and unblinded trial to demonstrate the benefit of video games on different neurocognitive areas in cancer survivors, we studied attention functioning before and after the intervention program. The attention deficit subscale from the Behavior Assessment System for Children 3rd edition (BASC-3), self- and parent-reported versions, and the Continuous Performance Test, 3rd edition (CPT 3) will be used as outcomes (z scores: mean = 0, S.D. = 1).
Results: We observed an improvement in attention after intervention using the CPT-3 (omissions z = 1.2; hit reaction time z = 3.4; hit reaction time block change z = 1.2 versus hit reaction time z = 3.6 without other atipycal z scores after intervention), changing the attentional pattern from "ADHD" to "slowed". However, in the parent-reported version of the BASC-3, a worsening in the attention subscale is observed (z = 0.3 pre-intervention vs z = 1.0 post-intervention) while the self-reported version of the patient didn't show any significant changes (z = 1.4 pre-intervention vs z = 1.1 post-intervention).
Conclusions: It is essential to use objective tests to measure neurocognitive sequelae in these patients. Subjective surveys can provide additional information, but not substitute the above.

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