O-44 - ACUTE POST-TRAUMATIC STRESS DISORDER IN ONCOLOGICAL PATIENTS. FUNCTIONAL EVIDENCE FROM A PET FDG STUDY

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Aims: Oncological diagnosis is considered to be a major traumatic event and results in post-traumatic stress disorder (PTSD) in a percent of patients ranging between 34 and 80. The aim of the study was to investigate for the first time the functional evidence of possible PTSD in a large cohort of Hodgkin Disease patients (HD).
Methods: Forty-nine HD underwent metabolic positron emission tomography (^{18}F- FDG-PET) within a week from diagnosis (PET0) and after two 28-days adriamycin, bleomycin, vinblastine, dacarbazine (ABVD) cycles (PET2). Thirty-five patients were examined after further four 28-days ABDV cycles (PET6). FDG uptake was compared between conditions by paired t-test implemented in statistical parametric mapping.
Results: As compared to PET0, PET2 showed a highly significant increase in ^{18}F-FDG distribution in right superior temporal gyrus and right inferior parietal lobule (Brodmann area 39). When PET2 data were subtracted to PET0 a highly significant hypometabolic area including a large portion of the prefrontal and orbitofrontal cortex (BAs 10, 11 and 32), bilaterally, was found. The ^{18}F-FDG uptake distribution changes found at PET2 disappeared at PET6 in which no significant changes were found.
Conclusions: After the first two months of chemotherapy, we found in HD a significant reduction of brain glucose metabolism in prefrontal and orbitofrontal cortex, typical neurobiological correlate of PTSD. Such finding was not present any more after four months in those HD in which chemotherapy was completed suggesting that acute PTSD disappeared in this cohort of patients following the improvement of general physical and psychological conditions due to successful therapy.

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