

QOL-25. NEUROCOGNITIVE ASSESSMENT OF PEDIATRIC MEDULLOBLASTOMA TREATED BY MBMET_MEYER TRIAL. CENSULLO M.L.¹, BERTOLUZZO G.², FONTE C.¹, PAVONE R.¹, GUIDI M.¹, ENRICO G.¹, GORI C.G.¹, MARTIN R.², TEODORI C.², SARDI I.¹ ¹NEURO-ONCOLOGY UNIT, DEPARTMENT OF PEDIATRIC ONCOLOGY, MEYER CHILDREN'S UNIVERSITY HOSPITAL, FLORENCE, ITALY ²PSYCHOLOGY UNIT, MEYER CHILDREN'S UNIVERSITY HOSPITAL, FLORENCE, ITALY

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The MBMET_MEYER is an interventional monocentric trial of Meyer Children's Hospital. The goal of this protocol is to reduce toxicity by use of protontherapy and reducing chemo-induced neurotoxicity by limited use of high dose chemotherapy. To date, a neurocognitive assessment is the standard in medulloblastomas but it is very difficult an assessment at baseline for clinical problems such as age, intracranial hypertension and immediate intervention. 10 neurocognitive assessments were reviewed in patients with medulloblastoma treated by MBMET_MEYER protocol: 3 anaplastic medulloblastoma M0 and 7 classic (2 M0, 1 M1, 1 M2, 3 M3). The median age was 10 years (range 5-18). All the patients were treated with surgery (gross total removal), 2 received chemotherapy and conventional radiotherapy, 8 chemotherapy and protontherapy and only 1 received autologous-hematopoietic stem cell transplant for progression disease after induction chemotherapy. As for protocol, the neurocognitive assessment was defined by Wechsler Intelligence Scales, fonemic and semantic fluency, immediate and deferred memory, tests for working memory, attention and visuo-spatial tests at baseline, after treatment and at the end of follow-up. For 3 patients it was not possible a baseline assessment for bad clinic conditions, 8 are still in treatment. From interviews and assessments emerged that 80% of patients had neurocognitive deficits: at baseline 5 had speed elaboration difficulties, 1 of these also presented verbal deficit, 1 showed problems in recalling verbal material and 1 in working memory; after two years from chemotherapy and radiotherapy 2 presented speed processing and working memory deficit. In conclusion, an assessment at baseline is very difficult for post-surgical problems but necessary to perform as soon. In this way, it is possible to evaluate the impact of the treatment on neurocognitive impairment. Further investigations are necessary to well understand the appropriate schedule of neurocognitive assessment of pediatric medulloblastoma.

QOL-26. EXPLORING THE EXPERIENCE OF YOUNG PEOPLE RECEIVING REMOTELY DELIVERED ACCEPTANCE AND COMMITMENT THERAPY FOLLOWING TREATMENT FOR A BRAIN TUMOUR

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Despite high survival rates of children and young people diagnosed with a brain tumour, survival is often associated with poor psychological, physical, and social outcomes. Acceptance and Commitment Therapy (ACT) is an evidence-based psychological intervention shown to improve psychological and physical outcomes in adults and children with chronic disease, including cancer. The ACT Now study investigates the feasibility of ACT delivered remotely with young people who have experienced a brain tumour. This study aims to describe participant experience whilst better understanding the impact of therapy and capturing the barriers and facilitators to engagement. Participants of the ACT Now study were invited to take part in a semi-structured interview with questions covering experience of study initiation, receipt of ACT, remote delivery and overall impact of ACT. Ten participants who had previously undergone treatment for a brain tumour have been interviewed to date. Interviews were transcribed verbatim and coded into broad themes. We found that pre-therapy mood and altruism served as motivation for interviewees' involvement in the study. Interviewees reported hoping to learn coping techniques to navigate fluctuating moods and the pressures of young adult life. Despite the technology used for remote delivery occasionally malfunctioning, interviewees reported increased ability to access therapy via this method. However, an overall preference for face-to-face therapy delivery was reported with inter-

viewees describing that they felt communication might have been easier in person. The therapeutic relationship and the therapists' flexible schedules were seen as facilitators to session attendance. Barriers to attendance were scarcely reported but included scheduling conflicts due to work or school. ACT was highly regarded amongst interviewees and provided an opportunity for them to learn about themselves and how they can live in accordance with their personal values. Interviewees benefitted from ACT psychologically, physically, and socially and reported an overall positive experience of study involvement.

QOL-27. SOCIOCULTURAL VARIABLES HAVE A MAJOR IMPACT ON PARTICIPATION IN PATIENTS TREATED FOR PEDIATRIC POSTERIOR FOSSA TUMORS

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OBJECTIVE: This study investigates the extent of participation barriers in patients with pediatric posterior fossa tumors (PFTs) at long-term follow-up. While most studies focus on pathobiological variables that promote the occurrence of adverse late effects, the present analysis aims to investigate the importance of environmental variables. **METHOD:** Ten years after tumor diagnosis, 42 patients (mean age: 17 years) treated at our pediatric neuro-oncology unit were assessed for school and social difficulties using a questionnaire developed within the framework of this study. Participation barriers were assumed if patients and/or their parents reported difficulties at school or with peers. The children and adolescents were classified into groups with adequate and limited participation. Potential pathobiological (treatment type, hydrocephalus, tumor recurrence, gender, age at diagnosis, seizures, cerebellar mutism) and environmental risk factors (parental and maternal education, siblings, primary language, discrepancies between personal and environmental values, regular physical activity, private housing) were identified and examined to see if the participation groups differed in the amount of risk factors. **RESULTS:** Almost a decade after treatment, two thirds of the patients had school and/or social difficulties. Not only pathobiological risk factors (type of treatment, hydrocephalus, tumor recurrence, cerebellar mutism and seizures), but also environmental factors (low maternal education level, siblings, a main language other than German, discrepancies between social and personal values, and irregular physical activity) were associated with limited participation. These variables discriminated significantly between patients with and without participation barriers. **CONCLUSION:** Participation barriers in patients treated for pediatric PFT are frequent. In addition to pathobiological variables, environmental risk factors also play an important role in limiting school and social participation. This underlines the fact that a sole consideration of pathobiology is not sufficient when examining risk factors for the occurrence of late effects. The adoption of biopsychosocial perspectives in future studies is inevitable.

QOL-28. CLINICO-MOLECULAR CORRELATES OF QUALITY OF SURVIVAL AND NEUROCOGNITIVE OUTCOMES IN MEDULLOBLASTOMA; A META-ANALYSIS OF THE SIOP-UKCCSG-PNET3 AND HIT-SIOP-PNET4 TRIALS

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Determinants of survivorship outcomes are emerging from limited studies of medulloblastoma (MB) survivors. We undertook an integrated analysis of biological (tumour group, host genetics) and clinico-demographic features in patients treated on the SIOP-UKCCSG-PNET3 and HIT-SIOP-PNET4 clinical trials with available quality of survival (QoS) data (n=218), to determine key correlates of survivorship, and their clinical potential. Treatment/demographic factors and molecular subgroup (MB_{WNT}, MB_{SHH}, MB_{Grp3}, MB_{Grp4}) were assessed against health status, behavioural functioning, and health-related quality of life (HrQoL). In DNA from HIT-SIOP-PNET4 (n=74), 39 candidate SNPs with known modifying effects on neurocognitive outcomes (e.g., involved in oxidative stress/inflammation) were genotyped and assessed against Wechsler Intelligence Scale (WISC) scores. As expected,