(EORTC) target volume delineation guideline, the clinical target volume (CTV) used for treatment planning consisted of residual tumor and resection cavity plus 2-cm margin. MRI scans showing tumor recurrences were fused with the planning computed tomography (CT), and the patterns of failure were analyzed dosimetrically using dose-volume histograms. The recurrent lesions were defined as in-field, marginal, or distant if >80%, 20-80%, or <20% of the intersecting volume was included in the 95% isodose line. For each patient a theoretical plan consisting of a reduced CTV using 1-cm margin was created and patterns of failure evaluated. RESULTS: The median overall survival and progression-free survival were 15.3 months and 7.8 months, respectively, from the date of surgery. Recurrences were in-field in 180 patients, marginal in 5 patients, and distant in 22 patients. Analysis of O6-methylguanine-DNA-methyltransferase (MGMT) promoter methylation status showed different recurrence patterns of GBMs in patients with MGMT methylated compared with patients with MGMT unmethylated status. Recurrences occurred in-field and distant in 75.6% and 18.6% of methylated patients and in 91.8% and 6% of unmethylated patients, respectively (p=0.0046). Patterns of failure were similar between the different treatment plans. Reduced target volumes were associated with significantly lower doses of 20-50 Gy to normal brain and hippocampi (p=0.0001). CONCLUSION: Most of patients treated with standard chemioradiotherapy have in-field recurrences; however, an increased risk of distant recurrences occurs in methylated tumors. The use of target delineation using 1-cm CTV margin is associated with smaller volumes of normal brain and hippocampi irradiated to high doses, without significant changes in the pattern of failure. The impact of different target delineation in terms of efficacy and risk of late radiation-induced toxicity should be assessed prospectively.

KS02 PERSON-CENTRED CARE AND IMPLEMENTATION

KS02.5.A. COVID19 IMPACT ON THE NEURO-ONCOLOGICAL POPULATION. EVALUATION OF CRITICAL ISSUES AND RESOURCES OF PATIENTS AND CAREGIVERS

E. Anghileri[1], I. Tramacere[1], S. Morlino[1], C. Leuzzi[1], L. Pareja Gutierrez[1], L. Fariselli[1], A. Silvani[1], F. Berrini[2]; [1]Fondazione IRCCS Istituto Neurologico Carlo Besta, Milan, Italy, [2]AITC- Associazione Italiana Tumori Cerebrali (Italian Brain Tumor Association), Milan, Italy.

BACKGROUND: The COVID-19 pandemic has inferred on patients (PTS) with cancer regarding disease evolution as well as the emotional and social functioning. The assessment of the needs and perceptions of PTS and their caregivers, is a priority to ensure an adequate standard in taking care and to promote the compliance to the treatments.

The aim of this study is to understand how COVID-19 affects the emotional state and medical relationship in neuro-oncology. MATERIAL AND METHODS: From Apr 2020 to Dec 2021 a prospective study was conducted on neuro-oncological PTS and their caregivers, including a 41-question and 16-question survey respectively. RESULTS: 162 PTS and 66 caregivers completed the questionnaire. 57.5% of PTS perceived grater risk , 37.5% the same risk and 5% lower risk of contracting the COVID-19 disease compared to the general population. 9.6% of PTS got SARS-CoV2 infection.Using a scale 0-10 for the assessment of anxiety, PTS experienced 5.8 (standard deviation, sd 2.6) as anxiety level related to tumor and 4.6 (sd 2.5) level about COVID-19 risk. For the most part there was no change in the treatment of cancer (81.5%). Due to the COVID-19 pandemic, 9.2% of PTS decided to delay anti-tumoral therapeutic schedule and 27.9% referred to be worried about going to hospital for consultation. Overall, 93.5% of PTS was satisfied with the treatments received. 52.6% of PTS felt different perception of the future during COVID-19, mostly referred like more uncertain. Caregivers experienced 7.7 (sd 2.1) anxiety level about tumor and 5.5 (sd 2.4) about COVID-19 risk. In 67.7% of caregivers the perception of the future has been changed, mostly towards greater insecurity. 75.0% of PTS described at least good Quality of Life (QoL), 65.4% of PTS declared to have sufficient resources to deal with the situation. There was a correlation between QoL and resources (P = 0.000). 77.3% of caregivers defined their care burden increased during the pandemic and 73.4% defined their QoL at least as good. We found a correlation between COVID-19 anxiety and anxiety for tumor diagnosis (ρ=0.53%, P = 0.000) as well as with future perception (Mann Whitney U test between PTS with different versus unchanged future perception, P = 0.001) in the PTS population. CONCLUSION: The WHO definition of health refers to the biopsychosocial model. This model attributes the outcome of disease, as well as health, to the intricate and variable interaction of biological, psychological factors and social factors. In line with this model, it is essential to guarantee and improve the standard of care, also based to the real needs perceived by PTS and caregivers and to historical and social context. This is especially important in a pandemic period like COVID-19 is in which the good QoL can be compromised. An appropriate health-system organization and a special attention to patient doctor communication can make the different on QoL and the future perception.

KS02.6.A. APPLICATION OF POSITIVE PSYCHOLOGY INTERVENTION IN CONTINUOUS QUALITY IMPROVEMENT OF NURSING CARE FOR PATIENTS WITH INTRACRANIAL TUMOR

L. Bai, Z. Zhou; Sun Yat-sen University Cancer Center, GuangZhou, China.

BACKGROUND: To investigate the effect of positive psychology intervention on continuous quality improvement of nursing care for patients with intracranial tumor MATERIAL AND METHODS: A total of 124 patients with intracranial tumor who received surgical treatment in our hospital from October 2020 to December 2021 were selected by convenience sampling method, and the patients were randomly divided into control group and intervention group.Patients in the control group received continuous quality improvement of postoperative routine care, and patients in the intervention group received positive psychological intervention based on postoperative routine care. Postoperative treatment compliance, subjective well-being and daily living ability were compared between the two groups RESULTS: The excellent compliance rate of intervention group was 95.15%, significantly higher than that of control group 83.87% (P < 0.05). The subjective well-being in intervention group (56.73±3.42) was significantly higher than that in control group (53.81±2.76) (P < 0.05). There was no significant difference in daily living ability score between 2 groups before intervention (P > 0.05). After intervention, the daily living ability score of the intervention group was (57.49±9.16), which was significantly higher than that of the control group and before intervention (P < 0.05). CONCLUSION: Positive psychology intervention for patients with intracranial tumor can effectively improve the quality of nursing, increase the patient's treatment compliance, and improve the subjective well-being of patients and the ability of daily life is of great significance.

KS02.7.A. IMPACT OF FET PET ON MULTIDISCIPLINARY NEUROONCOLOGICAL TUMOR BOARD DECISIONS IN PATIENTS WITH BRAIN TUMORS

G. S. Ceccon[1], J. Werner[1], M. I. Ruge[2], R. Goldbrunner[3], E. Celik[4], C. Baues[4], M. Deckert[5], A. Brunn[5], R. Büttner[6], H. Golla[7], L. Nogova[8], M. Schlamann[9], C. Kabbasch[9], D. Rueß[2], J. Hampl[3], M. Wollring[1,10], E. K. Bauer[1], C. Tscherpel[1,10], G. R. Fink[1,10], K. Langen[10,11], N. Galldiks[1,10]; [1]Department of Neurology, Faculty of Medicine and University Hospital Cologne, Cologne, Germany, [2]Department of Stereotactic and Functional Neurosurgery, Faculty of Medicine and University Hospital Cologne, Cologne, Germany, [3]Department of Neurosurgery, Faculty of Medicine and University Hospital Cologne, Cologne, Germany, [4]Department of Radiation Oncology and Cyberknife Center, Faculty of Medicine and University Hospital Cologne, Cologne, Germany, [5]Institute of Neuropathology, Faculty of Medicine and University Hospital Cologne, Cologne, Germany, [6]Institute of Pathology, Faculty of Medicine and University Hospital Cologne, Cologne, Germany, [7]Department of Palliative Medicine, Faculty of Medicine and University Hospital Cologne, Cologne, Germany, [8]Department of Internal Medicine, Faculty of Medicine and University Hospital Cologne, Cologne, Germany, [9]Institute of Radiology, Division of Neuroradiology, Faculty of Medicine and University Hospital Cologne, Cologne, Germany, [10]Institute of Neuroscience and Medicine (INM-3, -4), Research Center Juelich, Juelich, Germany, [11]Department of Nuclear Medicine, University Hospital RWTH Aachen, Aachen, Germany.

BACKGROUND: Following neurooncological treatment of brain tumors, neurooncologists are often confronted with equivocal MRI findings (e.g., treatment-related changes such as pseudoprogression, non-measurable contrast-enhancing lesions, T2/FLAIR signal alterations, pseudoresponse). Especially in Europe, amino-acid PET is increasingly integrated into multidisciplinary neurooncological tumor boards (MNTB) to overcome these diagnostic uncertainties. We evaluated the correctness of MNTB decisions, in which amino acid PET findings were taken into account. MATERIAL AND METHODS: In a single-university center study, we retrospectively evaluated 182 MNTB decisions of 154 patients with histomolecularly defined WHO grade 3 or 4 gliomas (n=123), including glioblastoma (n=80), anaplastic glioma (n=42), and gliosarcoma (n=1), or brain metastases (n=31) secondary to lung cancer, melanoma, breast cancer, or colorectal cancer presenting equivocal MRI findings following anticancer treatment. All patients underwent *O*-(2-[^{18}F]-fluoroethyl)-L-tyrosine (FET) PET imaging as an adjunct for decision-making. Additionally, the patients' clinical status, pretreatment, and conventional MRI findings were considered for decision-making. The presence of neoplastic tissue was considered if the mean FET uptake as assessed by tumor-to-brain ratios was > 2.0. MNTB decisions were validated using the neuropathological result in 42% (n=77) or clinicoradiologically in 58% (n=105). The diagnostic performance of MTNB decisions was evaluated using 2x2 contingency tables. RESULTS: The validation of all 182 MNTB recommendations, which integrated FET PET in the decision-making process, were correct in 95% (sensitivity, 97%; specificity, 75%; positive predictive value, 96%). Due to tumor progression, MNTB recommendations prompted a treatment change in 88% (n=160 of 182 decisions). When FET PET findings suggested progressive disease (n=157), MNTB decisions were