liminary results demonstrate that stable LrGG patients with subjective and objective cognitive impairments can reasonably engage in cognitive rehabilitation interventions. Updated data including post-intervention neuropsychological and HROQL related changes will be presented.

NCOG-23. PATTERNS OF DISTRESS IN OLDER PATIENTS WITH GLIOBLASTOMA: A FOLLOW-UP TO A SINGLE INSTITUTION CROSS-SECTIONAL STUDY OF DISTRESS IN PRIMARY BRAIN TUMOR PATIENTS

Margaret Johnson, James Herndon, II, Eric Lipp, Mary Affronti, Annick Desjardins, Manisha Bhattacharya, Henry Friedman, David Ashley, Katherine Peters, and Dina Randazzo; Duke University Medical Center, Durham, NC, USA

INTRODUCTION: We previously reported to SNO, high levels of psychosocial distress in adult patients with primary brain tumors (PBTs), particularly during the first 6 months following diagnosis. The purpose of this follow-up study was to identify patterns of distress among older (≥ 65 years) patients with glioblastoma (GBM) compared to their younger (ages 18-64) counterparts. METHODS: In our initial cross-sectional study, we collected the National Comprehensive Cancer Network's Distress Thermometer (NCCN-DT) and problem list from adult patients with PBTs (WHO grades I-IV) seen at our institution between December 2013 and February 2016. We performed subsequent analyses on a subset of patients with GBM. RESULTS: We identified 343 patients with GBM from the original dataset, of which 23.0% (n= 78) were ≥ 65 years old. The proportion of patients ≥ 65 years old with elevated distress (i.e. DT ≥ 4) was greater than the proportion of younger patients reporting elevated distress (47.4% vs 30.6%; p= 0.0068). Elevated distress was significantly greater during the first 6 months post diagnosis for all ages (p= 0.008). In subgroup analyses, a decrease in distress beyond 6 months was seen in younger patients (45.7% vs 27.4%; p= 0.021), but not in older patients. In older patients, a greater number of problems were selected on the NCCN DT and problem list tool: emotional and physical concerns were reported more frequently compared to their younger counterparts. Older patients were more likely to report difficulty with "bathing" and "getting around" (p= 0.009, p< 0.001, respectively). There were no differences in older versus younger GBM patients with regard to housing, transportation, treatment decisions, depression, fatigue, or memory. CONCLUSIONS: In contrast to their younger counterparts, older patients with GBM experienced elevated levels of distress and a greater absolute number of specific psychosocial problems, mostly related to emotional and physical concerns.

NCOG-24. WAKE FOREST NCORP RESEARCH BASE FEASIBILITY STUDY OF RAMIPRIL FOR PREVENTING COGNITIVE DECLINE IN GLIOBLASTOMA PATIENTS RECEIVING BRAIN RADIOTHERAPY (WF-1801)

Christina Cramer[1], Brandi Page[2], Jeffrey S. Wefel[3], Emily Dressler[1], Edward Ip[1], Steve Rapp[1], Edward Shaw[1], Kathryn Weaver[1], Glenn Lesser[1], and Michael Chan[1]; [1]Wake Forest School of Medicine, Winston-Salem, NC, USA, [2]Johns Hopkins University School of Medicine, Bethesda, MD, USA, [3]MD Anderson Cancer Center, Houston, TX, USA

INTRODUCTION: Chronic neuro-inflammation after brain radiotherapy (RT) contributes to radiation-induced cognitive decline (RICD). The renin angiotensin system (RAS) may mediate this inflammatory cascade after RT. Ramipril is an angiotensin-converting enzyme inhibitor used to treat hypertension and has good blood-brain barrier penetration. By blocking RAS activation, ramipril reduces neuro-inflammation and preclinical data show that ramipril administration during RT can prevent RICD. METHODS: WF-1801 is an ongoing feasibility study that will enroll a total of 75 patients. Patients ≥ 18 with newly diagnosed and pathologically confirmed GBM who will receive chemoradiation are eligible. All participants take ramipril daily during RT and for 4 months thereafter. Ramipril is titrated from 1.25mg to 5mg daily over 3 weeks. A cognitive battery that includes the Hopkins Verbal Learning Test-Revised (HVLT-R), Trail Making Test (TMT), and Controlled Oral Word Association test (COWA) is administered at baseline, end of RT, and 1-month and 4-months post-RT. The co-primary endpoints are retention rate (with retention defined as compliance with > 75% of drug therapy doses) and neurocognitive function at 1-month post-RT. To estimate the effect of ramipril on cognitive function, performance on the cognitive battery will be compared to a historical control (cognitive data from the control arm of RTOG 0825). ApoE genotyping is being performed as a correlative study. RESULTS: 31 of a planned 75 participants have been enrolled over 14 months. 20 of 31 (64.5%) are male. 21 (67.7%) are between the age of 40-64. 20 (95.6%) are white and 29 (93.6%) are not Hispanic or Latino. CONCLUSION: Despite a pause in accrual due to COVID-19, we are easily meeting planned accrual goals. Community oncology-based clinical trials of interventions to prevent cognitive toxicity appear to be feasible. GBM patients seem eager to enroll in studies seeking to prevent cognitive decline. Supported by NCI grant UG1CA189824.

NCOG-25. EFFICACY OF ANTICONVULSANT THERAPY IN GLIOMA PATIENTS

Ravi Medikonda, Kisha Patel, Laura Saleh, Siddhartha Srivastava, Christina Jackson, Aditya Mohan, Pavan Shah, Jon Weingart, Chetan Bettegowda, Gary Gallia, Henry Brem, and Michael Lim; Johns Hopkins University School of Medicine, Baltimore, MD, USA

Gliomas account for 30% of primary brain tumors and can frequently present with seizures. There are few guidelines for usage of anticonvulsant therapy in glioma patients. Some clinicians utilize anticonvulsant therapy in all glioma patients as a means of prophylaxis, whereas other clinicians prescribe anticonvulsant therapy only in patients that experience seizures. In this single-institution retrospective cohort study, we evaluate the effect of commonly prescribed anticonvulsant levetiracetam on incidence of post-operative seizures and overall survival in primary glioma patients. 436 patients met the inclusion criteria for this study. 35% of patients presented with a pre-operative seizure and 63% of patients received pre-operative Levetiracetam. The incidence of a seizure within 1 year of tumor resection was 31%. On multivariate logistic regression analysis of patient pre-operative clinical and imaging characteristics, it was found that only a pre-operative seizure ($p = 0.02$) significantly increased the odds of a post-operative seizure within 1 year of tumor resection. Neither pre-operative levetiracetam ($p = 0.31$), intra-operative levetiracetam ($p = 0.59$), or post-operative levetiracetam ($p = 0.75$) significantly reduced the odds of a post-operative seizure. Using a cox proportional hazards model, pre-operative levetiracetam ($p = 0.11$), intra-operative levetiracetam ($p = 0.34$), and post-operative levetiracetam ($p = 0.88$) do not significantly affect overall survival. Our findings reveal that glioma patients are often prescribed anti-convulsant medication regardless of whether they have had a pre-operative seizure. Most patients also receive anti-convulsant medication in the peri-operative and post-operative setting regardless of whether they have had pre-operative or immediate post-operative seizures. Use of pre-operative or intra-operative levetiracetam as a prophylactic measure does not impact the incidence of post-operative seizures. Furthermore, anti-convulsant therapies do not demonstrate a survival benefit in our study. These results provide a rationale for re-evaluating the use of anti-convulsant medications in glioma patients that do not have seizure symptoms.

NCOG-26. IMPACT OF GENDER ON TUMOR TREATING FIELDS COMPLIANCE IN PATIENTS WITH GLIOBLASTOMA

Lauren Karpf[1], Sanjeev Chawla[2], Lisa Desiderio[1], and Suyash Mohan[2]; [1]University of Pennsylvania, Philadelphia, PA, USA, [2]Perelman School of Medicine at the University of Pennsylvania, Philadelphia, PA, USA

BACKGROUND: Tumor treating fields (TTFields) has emerged as a novel antimitotic modality to treat glioblastoma (GBM). Recently, a positive association was reported between TTFields dose at the tumor bed and survival outcomes in GBM patients. Dose density depends upon power density and compliance rate (cumulative amount of time TTFields therapy is delivered to the patient). Increased compliance with TTFields has been proposed as an independent prognostic factor for improved clinical benefits. There is evidence that females tend to respond better than males to standard therapy. However, the impact of gender and age on TTFields compliance is not fully understood in GBM patients. OBJECTIVE: To investigate potential interactions amongst age, gender and TTFields compliance in GBM patients. METHODS: A cohort of 16 patients (males =9; females=7; mean-age=60.8±7.6years) with newly diagnosed and recurrent GBM receiving TTFields were analyzed retrospectively. Device usage time was collected from internal log files in each case. The mean duration of TTFields therapy in patients was 4 months. Chi-square and independent sample T-tests were performed to evaluate differences in compliance rates based on patient age and gender and to examine gender-age relationships. Additionally, Pearson correlation analyses were performed to determine associations between gender and compliance rates. The probability (p) value of 0.05 was considered significant. RESULTS: A trend (p=0.067) towards greater TTFields compliance was observed in females (80.1±0.11%) versus males (63.0±0.22%). Additionally, there was a strong positive correlation (R=0.73; p=0.058) between age and compliance rates for female patients. There were 6 patients ≥ 65 years and 10 patients < 65 years. However, we did not find significant differences in compliance rate and gender variables between patients ≥ 65 years and < 65 years of age. CONCLUSIONS: Our results demonstrate gender influences TTFields compliance amongst GBM patients. However, future studies with larger cohorts are warranted to validate these findings.

NCOG-27. INCREASED OVERALL SURVIVAL AMONG RACIAL MINORITIES AND SUBOPTIMAL USE OF STANDARD OF CARE TREATMENT IN GLIOBLASTOMA MULTIFORME

Stephanie Boisclair[1], Shenae Samuels[2], Arjun Khunger[1], Delia A. Wietecha[1], Alejandro Lopez Cohen[1], Kelly King[2], Candice Sareli[2], Jessica Jacques[3], Mathew Salzberg[3], Michel Vulfovich[3], Brian Hunis[3], Luis E. Raez[4], and