HEALTH OUTCOME MEASURES

HOUT-01. A RETROSPECTIVE ANALYSIS OF OUTCOMES WITH TEMOZOLOMIDE AS INITIAL TREATMENT OF GRADE 2 OLIGODENDROGLIOMA

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INTRODUCTION: Prior randomized studies have shown a survival benefit of radiation and chemotherapy compared to radiation alone for grade 2 gliomas (astrocytoma and oligodendroglioma) and grade 3 oligodendroglioma. However, data is mixed regarding outcomes for patients treated initially with chemotherapy alone as well as outcomes based on sequence of chemotherapy and radiation treatments. METHODS: We performed a retrospective analysis of outcomes in grade 2 oligodendroglioma treated initially with temozolomide (TMZ) alone. Variables included in the analysis were age, extent of resection, timing of TMZ treatment, progression free survival, and overall survival. RESULTS: A total of 37 patients with grade 2 oligodendroglioma who received TMZ as the first course of treatment were identified. Median age at diagnosis was 43 years. Extent of resection was as follows: complete resection 32%, subtotal resection 43%, stereotactic biopsy 14%, and unknown in 11%. Of the 37 patients in the cohort, 41% received TMZ immediately following initial diagnosis with the remaining 59% receiving TMZ after initial observation. Median PFS after TMZ treatment was 3.94 years, and 25% of patients treated with TMZ alone progressed within 2 years. Despite the rate of early progression, the median overall survival from TMZ was 15.46 years. Extent of resection was not significantly associated with survival. CONCLUSIONS: This retrospective series supports the observations from the TMZ monotherapy exploratory arm of CODEL that PFS in oligodendroglioma patients treated with TMZ alone as initial therapy is likely significantly worse than patients treated with combination of radiation and chemotherapy. The relatively good OS in this same patient population suggests that additional salvage therapy at the time of progression may still result in prolonged survival. Clinical and molecular biomarkers are needed to identify higher or lower risk subtypes within oligodendrogliomas to assist in treatment decision making.

HOUT-02. VARIATION IN POST-OPERATIVE LENGTH OF STAY IN NEURO-ONCOLOGIC SURGERY

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INTRODUCTION: Little is known about the predictors of post-operative length of stay (LOS) following brain tumor resection or the influence of LOS on post-operative outcomes. METHODS: We assessed associations between LOS and 30-day post-operative morbidity, mortality, and readmission in a nationwide retrospective cohort study of Americans who underwent resection for an intracranial tumor. The analysis included data collected from the National Inpatient Sample (NIS) and the National Hospital Discharge Survey (NHDS) from 1979 to 2010 in a multivariable logistic regression model. RESULTS: In total, 64,131 cranioectomy for tumor cases were identified in NISQIP with a median age of 58 years (IQR 47–67). Median post-operative length of stay was 3 days (IQR 2–6). Patients with LOS of 1–2 days after craniectomy were deemed early discharge (28%), 3–5 days was considered an intermediate LOS (46%), while >6 days of LOS was considered late discharge (28%). Predictors of early discharge included male sex, white race, young age, functional independence, low chronic disease burden, low ASA score, shorter operative length, supratentorial location, and cranial nerve tumor histology (p<0.001). CONCLUSION: Early discharge following craniectomy for tumor resection was associated with decreased likelihood of post-operative medical complications, readmission, and death as compared to late discharge. Select patients may benefit from personalized discharge planning that prioritizes shorter LOS.

HOUT-03. SCREENING FOR MOOD DISTURBANCE IN LONG-TERM CENTRAL NERVOUS SYSTEM (CNS) TUMOR SURVIVORS USING PATIENT REPORTED OUTCOMES MEASUREED BY INFORMATION SYSTEM (PROMIS): A NEURO-ONCOLOGY BRANCH NATURAL HISTORY STUDY (NOB-NHS) REPORT

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BACKGROUND: Survivors of a particular type of cancer are often limited by the experience of long-term survivors of CNS tumors. A recent review of quality of life in adults with CNS tumors underscored the need for studies exploring patient outcomes, including mood disturbance. This report explores mood disturbance in CNS tumor survivors living greater than 5 years from diagnosis. METHODS: Patients enrolled on the NOB-NHS were included; PROMIS depression/anxiety measures were included at study entry. T-scores >60 were considered significant. Independent sample t-tests, chi-square and Fishers Exact tests were used to identify associations with mood disturbance. Significance level was set at 0.05. RESULTS: 132 patients were on corticosteroids and 20% on psychotropic medications. Overall, 14% and 18% reported significant depression and anxiety respectively, with 10% reporting both. More non-white [29% vs 11%; X² (1) = 4.4, p<0.04] reported significant depressive symptoms and those with more comorbidities [25% vs 10%; X² (1) = 4.2, p<0.04] and those on psychotropic medications [27% vs 11%; X² (1) = 4.5, p<0.04]. Anxiety was only associated with the use of psychotropic medications [38% vs 13%; X² (1) = 9.3, p<0.01]. CONCLUSION: Symptoms of depression and anxiety occurred in 20% of long-term brain tumor survivors on screening. Depressive symptoms were associated with race, lower KPS, and use of psychotropic medications. Additionally, use of psychotropic medications was associated with anxiety. Assessment of depression and anxiety as part of survivorship care is warranted. Future studies exploring phenotypes at risk and targeted interventions are needed to mitigate these symptoms.

HOUT-04. DEMOGRAPHIC PROFILES, MANAGEMENT AND CLINICAL OUTCOMES OF GliOBlastoma patients treated at st. luke’s medical center- philippines

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INTRODUCTION: Glioblastoma is a highly aggressive primary brain tumor and typically treated with maximal safe resection followed by concomitant radiation and temozolomide followed by 6 cycles of adjuvant temozolomide. METHODS: We reviewed historically documented glioblastoma cases seen and treated at our center from 2005 until 2015. Demographic, diagnostic, treatment, and outcome data was collected. RESULTS: 105 GBM patients were treated with a median age of 45 and KPS 90. Fifty five percent (58/105) had gross total resection, 18% subtotal resection and 13% biopsy. Seventy percent (74/105) were treated with RT plus TMZ. 15% (16/105) KPS 1 RT alone and 84% (53/105) KPS 2 TMZ alone. The most common adverse events are fatigue and somnolence. Median follow up is 10.5 months. Progression free survival (PFS) is 13.38 months while overall survival (OS) is 15.43 months. CONCLUSION: This is the first study done for glioblastoma patients in the Philippines treated after surgery with RT plus concomitant and adjuvant TMZ. The results are consistent with the published data.

HOUT-05. INVESTIGATION OF Ki-67 PROLIFERATIVE INDEX AND PATIENT SURVIVAL IN GlioblastoMA MULTIFORME

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INTRODUCTION: Glioblastoma multiforme (GBM) is a rapidly growing, aggressive brain tumor. Studies demonstrate that higher Ki-67 proliferative indices predict poorer survival in GBM patients. It remains unclear whether therapeutic responses vary when stratifying patients by Ki-67 index. Our objective was to investigate the relationship between Ki-67 index and post-surgical survival in patients with GBM undergoing radiotherapy and/or chemotherapy with RT plus TMZ, alone. METHODS: Patients from the CCR’s Glioma to VCU program between January 2003-February 2015 were retrospectively reviewed. Inclusion criteria were: 1) Age > 18, 2) Biopsy/surgery with histopathologic testing, 3) Reported Ki-67 index, and 4) Initial T2 post-contast tumor volumes. Ki-67 indices were stratified into three groups: Ki-67 ≤ 10, 10 < Ki-67 ≤ 20, and Ki-67 > 20. The primary outcome was overall survival, calculated