P08.69 THE ROLE OF COMORBIDITY IN ELDERLY GLOIOBLASTOMA

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BACKGROUND: Several studies observed that age is the most significant factor associated with poor prognosis in patients with glioblastoma (GBM). Age is not the only factor in the choice of treatment in elderly patients. Recent studies in cancer patients have shown that comorbidities should be considered a contraindication to aggressive approach, as they can influence the treatment compliance and/or patients' survival. Co-morbidities are often underestimated in patients affected by GBM, and their role on the outcome of elderly GBM patients has been poorly explored. This study evaluated the impact of comorbidities on outcomes in elderly GBM patients.

METHODS: Patients over 65 years affected by GBM were consecutively enrolled in a prospective observational study. Demographic and clinical characteristics were recorded. For each patient, comorbid conditions were identified with the modified version of the Cumulative Illness Rating Scale (CIRS) (21). Results: Sixty-six patients (36 males and 30 females) with GBM were enrolled in the study. The median age at diagnosis was 73 years. The median PFS was 8 months with a median of OS of 18 months. The univariate analysis demonstrates that the variables useful in predicting disease progression were: a severity of CIRS-CI compared with a slight CIRS-CI (HR = 3.78, 95% CIs from 1.32 to 10.88 p = 0.013) and the CM greater than 2 compared with the CM less or equal to 2 (HR = 2.01, 95% CIs from 1.03 to 3.93 p = 0.040). At the multivariate analysis the severity of CIRS-CI showed a statistical trend (serious vs slight HR = 3.01, 95% CIs from 0.93 to 9.72 p = 0.065) (table 2). Univariate analysis of the whole cohort found that having an age ≥ 75 years (>75 vs ≤ 75; HR = 2.39, 95% CIs from 1.78 to 3.21 p < 0.001), intermediate or high HCN (intermediate vs slight HR = 2.04, 95% CIs from 1.04 to 4.07 p = 0.038 and high vs slight HR = 8.42, 95% CIs from 3.44 to 20.58 p = 0.001) and high CIRS-CI (HR = 8.63, 95% CIs from 2.98 to 24.94 p < 0.001) (table 3). The multivariate analysis confirmed the predictive role on survival for age ≥ 75 years (HR = 2.40, 95% CIs from 1.99 to 3.17 p < 0.001), intermediate or high CIRS-CI (intermediate vs slight HR = 2.26, 95% CIs from 1.06 to 4.81 p = 0.034) and high CIRS-CI (HR = 8.63, 95% CIs from 2.98 to 24.94 p < 0.001) (table 3). The CM was not confirmed in the multivariate analysis. Discussion: Lastly, our findings need to be replicated in larger samples. In this prospective study the prognostic role of comorbidity measured by CIRS on the outcome is confirmed, it would be important to add it in the algorithm for treatment choice in elderly GBM patients.

P08.70 PROGNOSTIC AND PREDICTIVE FACTORS IN PRIMARY GLOIOBLASTOMA MULTIFORME WHO GRADE IV PATIENTS WITH RESECTION: A SINGLE-INSTITUTION STUDY

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BACKGROUND: Patients with GBM continue to have a dismal prognosis, with a median survival of about 12 months.

METHODS: A retrospective population-based study is focused on the relation among the selected gene aberrations and overall survival of primary Glioblastoma Multiforme patients only with resection. We collected clinical data of 140 patients treated in our hospital from July 2006 to June 2014. All tumour samples were submitted to histologic analysis and were investigated for the aberrations of TP53, EGFR, PTEN, MDM2, RB1, CCND1, BCR, 9p21 (CDKN2A, p16), 10p11, 19q13, 1p36, IDH1 mutation, and MGMT promoter methylation.

RESULTS: The younger age, Karmofsky score a chemoradiotherapy (74.3 months in radiotherapy alone) at diagnosis was a positive and smoking was a negative prognostic factor. Temporal lobe tumour origin was associated with a shorter period of Performance free status in the group with chemoradiotherapy. Relation of OS according to univariate Cox regression model: p53 high copy number (HCN), CCND1 HCN, 10p11HCN and partly MGMT promoter methylation were linked to prolonged OS.

Cox proportional regression models for survival revealed that TP53 HCN was associated with a prolonged OS of all patients and the chemoradiotherapy group. CCND1 HCN, 10p11HCN and partly MGMT promoter methylation significantly extended OS in the group with chemoradiotherapy. The effect of these gene changes on OS was reduced in the group and for all patients.

CONCLUSION: Author made the efforts to gain clinical and genetic factors, which easily usable in the clinical practice. Contrary literature data, there were confirmed TP53, CCND1 as predictive and prognostic factors.

P08.71 TREATMENT OUTCOME OF PATIENTS WITH RECURRENT GLOIOBLASTOMA MULTIFORME: A RETROSPECTIVE MULTICENTER ANALYSIS

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BACKGROUND: Glioblastoma (GBM) universally recurs with dismal prognosis. To date, there is no standard treatment for patients with recurrent GBM. Here we provide a better insight in the clinical outcome of currently applied treatment strategies for patients with recurrent GBM based on a retrospective analysis.

METHODS: From two referral centers for brain tumors in the Netherlands, 299 patients, diagnosed between 2005 and 2014, with recurrent GBM after first-line treatment with surgical resection and radiotherapy with concomitant and adjuvant temozolomide chemotherapy, were evaluated. According to the given second line treatment, patients were divided into four groups: systemic treatment (SYS1), re-irradiation (RT), re-resection followed by adjuvant systemic treatment (SURG) and best supportive care (BSC). Progression-free survival (PFS) was based on MRI-evaluations by specialized neuro-oncology radiologists, as in daily clinical practice.

RESULTS: After the PFS and OS for the whole group of patients with recurrent GBM were 5.5 and 6.5 months, respectively. Older age, tumor extent to multiple lobes, steroid use and a shorter time to recurrence were significantly associated with a shorter survival and were, along with sex and a primary histologic subtype, considered as confounders in our multivariate analysis. Despite different center-specific treatment strategies, such as the percentage of re-resections (25.7% versus 8.9%) or re-irradiation (1.7% versus 14.7%), performed in both centers no difference in survival was seen (P = 0.398). Patients receiving SYS1 (34.8%) and SURG (18.7%) had a favorable survival outcome compared to BSC (39.5%), 7.3 months and 11.0 months versus 3.1 months, respectively, with adjusted hazard ratios of 0.46 (P = 0.001) and 0.36 (P < 0.001). Patients receiving RT (7.0%) had a median survival of 9.2 months. However, after adjustment for confounders, their survival outcome did not significantly differ compared to BSC (P = 0.067). Between SYS1 and SURG no significant difference for OS became apparent, but patients receiving SYS1 compared to SYS1 did have a prolonged PFS (9.0 months versus 4.3 months, respectively; P < 0.001).

CONCLUSION: After adjustments for confounders, such as age and steroid use, patients with recurrent GBM receiving SYS1 or SURG treatment have a significantly prolonged survival compared to patients with BSC. Since no significant difference in survival between SURG and BSC became apparent, further prospective studies to determine the value of SYS1 versus SYS1 in patients with recurrent GBM are urgently needed in order to optimize currently available treatment strategies.

P08.72 NEW CLUES TO DECISION TREE IN GLOIOBLASTOMAS RELAPSE: AN INSTITUTIONAL EXPERIENCE

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Glioblastoma (GBM)’s standard treatment consists of maximal surgical resection followed by radiotherapy (RT) plus concomitant and adjuvant temozolomide. When relapse or progression occurs after RT and temozolomide, there is no standard treatment and OS ranges from 3 to 9 months. EORTC 26101, a phase III open-label study comparing bevacizumab with lomustine vs lomustine alone showed a statistically significant benefit of the combination in median PFS (6.5 months) although there was no benefit in median OS or neurological deterioration. From January 2014 to January 2016 we treated a selected population of 17 highly functional patients with the duplet bevacizumab + Lomustine with a mean survival in line with the current standards reported for that group of patients affected by GBM.

RESULTS: Median age of the patients was 62 years (range 46-83). The mean Karnofsky score was 88 (range 80-100). 3 patients (17.6%) had a performance status > 80. The mean time from diagnosis of GBM to relapse or progression was 14 months (range 6.2-34.8). 15 patients (94%) were men. The median number of recurrences was 1.4 (range 1-5). 2 patients (12%) received systemic treatment at diagnosis, but the median OS from diagnosis of GBM to relapse or progression was 14 months (range 6.2-34.8 months).

CONCLUSION: Although glioblastoma is a common cause of SE, its prevalence in glioblastoma remains unclear. Also, it is unknown whether the occurrence of SE is