therapy presented with a significantly longer median PFS of 107.5 months (95%CI: 62.8-n.r.) as compared to patients initially managed with observation (45.3 months, 95%CI: 41.2–78.8; p=0.025). CONCLUSION: The application of adjuvant therapy was associated with favorable PFS in patients who underwent resection of newly diagnosed oligodendroglioma in this retrospective study. Prospective clinical trials should investigate the risks and benefits of adjuvant treatment versus initial observation in patients with oligodendroglioma.

P14.17 CONVENTIONAL MRI CRITERIA DIFFERENTIATE TRUE TUMOUR PROGRESSION FROM TREATMENT-INDUCED EFFECTS IN IRRADIATED WHO GRADE 3 AND 4 GLIOMAS

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BACKGROUND: Post-treatment radiological deterioration of patients with an irradiated high-grade (WHO grade 3 and 4) glioma (HGG) may be the result of true progressive disease (PD) or treatment-induced effects (TIE). Differentiation between these two entities is of great importance, but remains a diagnostic challenge. This study assesses the diagnostic value of conventional MRI characteristics to differentiate PD from TIE in treated HGGs. MATERIAL AND METHODS: In this single-centre, retrospective cohort study, we included adult patients with a HGG, who were treated with radiotherapy and subsequently developed a new or increasing contrast-enhancing lesion on conventional follow-up MRI. TIE and PD were defined radiologically as stable/decreased for a minimum of six weeks or progressive according to the RANO criteria, and histologically as predominantly TIE without viable tumour or PD. Demographic and clinical data were retrieved. Twenty-one preselected MRI characteristics of the progressive lesions were assessed by two neuroradiologists. The statistical analysis included logistic regression to develop a) a full multivariable model b) a diagnostic model with model reduction, and a Cohen's Kappa interrater reliability coefficient. RESULTS: 210 patients (median age 61, IQR=54–68, 189 males) with 284 lesions were included, of which 141 (50%) had PD. Median time to PD was 2 (0.7–6.1) and to TIE 0.9 (0.7–3.5) months after RT. In multivariable modelling and after model reduction, the following determinants were significant diagnostic factors: Radiation dose (Odds ratio (OR)=0.68, p=0.017), longer time since radiotherapy (OR=3.56, p<0.0005), certain enhancement patterns (soap bubble enhancement: OR=2.63, p=0.003), isointense apparent diffusion coefficient-signal (OR=2.11, p=0.036), development of multiple new lesions (OR=1.68, p=0.088) and increased marginal enhancement (OR=2.04, p=0.027). ORs of >1 indicate higher odds of PD. The Hosmer & Lemeshow test showed a good calibration (p=0.947) and the area under the ROC-curve was 0.722 (95%-CI=0.66–0.78). Interrater reliability analysis between neuroradiologists revealed moderate to near-perfect agreement for the significantly predictive items, but poor agreement for others. CONCLUSION: In patients with irradiated high-grade gliomas, several characteristics from conventional MRI are significant predictors for the discrimination between true progression and treatment-induced effects. Interrater reliability for these characteristics was variable. Conventional MRI characteristics from this study should be incorporated into a multimodal diagnostic model that includes advanced imaging techniques.

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P14.18 PATIENT AND PUBLIC INVOLVEMENT TO DEFINE PATIENT-CENTRED OUTCOMES FROM NATIONAL CANCER DATASETS

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BACKGROUND: GlioCova uses linked national cancer data on all 51 000 adult patients with a primary brain tumour in England (2013 - 2018) to understand patterns of care, treatment, and outcomes in patients with glioma (http://wwwf.imperial.ac.uk/blog/gliocova/). A key aim is the use of patient and carer input in defining patient-centered outcomes. We have held multiple Patient & Public Involvement (PPI) sessions with patients and carergivers and data analysts to understand what patient and caregivers want to know about brain tumours. MATERIAL AND METHOD: We used a modified Delphi method. The online PPI sessions (Zoom) consisted of two presentations, open discussions, and Q&As. We made the sessions as interactive as possible by using Mentimeter and an interactive online white board (Explain Everything). Pre-reading material was circulated via email. Attendees (6–14 per session) covered a wide range of ages (30–75), diagnoses (GBM, recurrent gliomas, low grade gliomas, ependymoma); patients, caregivers, neuro-oncology staff, data analysts and basic scientists. Work was conducted in line with the INVOLVE PPI guidance. RESULTS: We identified four questions that were of interest to patients and had correlates in the data:

Ø Potential symptoms experienced 3-months pre-diagnosis;

Ø Side effects, 3-months post-diagnosis;

Ø The survival following different treatments (i.e., surgery only, radiotherapy only);

Ø Demographics of patients who finished/ did not finish 6 cycles of temozolomide;

Patients and caregivers were also interested in the impact of diet, quality of life, social life, and exercise. However, these data cannot be answered using the current national data. CONCLUSION: Our PPI work has helped us to identify and prioritise questions to ask of the data. Ongoing PPI work will provide a wider perspective and identify knowledge gaps for future research. Patients and caregivers report feeling empowered, being part of a team, feeling like they had given something back and done something meaningful for the research community and other patients. Patients and caregivers also felt that they had an enriched understanding of the data that is collected. As this process is an iterative process, we will hold more PPI sessions to identify and prioritise topics to analyse.

** are brain tumour patients and caregivers*

P14.19 REGORAFENIB IN RECURRENT GLIOBLASTOMA PATIENTS: A LARGE REAL-LIFE EXPERIENCE

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BACKGROUND: Regorafenib (REG), an oral multikinase inhibitor of angiogenic, stromal, and oncogenic receptor tyrosine kinases showed encouraging benefit in recurrent GBM patients enrolled in the randomized, phase 2 REGOMA trial. We investigated the clinical outcome and safety of REG in a real-life population of recurrent glioblastoma patients treated at Veneto Institute of Oncology as off-label use. MATERIAL AND METHODS: Patients receiving REG at Veneto Institute of Oncology (Padua, Italy) were entered prospectively on a clinical database. Data were retrospectively analyzed. The primary endpoints of the study were overall survival (OS) and safety. The major inclusion criteria were: histologically confirmed diagnosis of GBM, disease progression as defined by RANO criteria after surgery followed by radiochemotherapy with temozolomide, ECOG PS ≤ 2; PTS with ≥ 2 prior lines of therapy were excluded. According to original schedule, patients received REG 160 mg once daily for the first 3 weeks of each 4-week cycle until disease progression, death, unacceptable toxicity, or consent withdrawal. Kaplan-Meier method was used to estimate the survival curves, RANO criteria for radiological assessment, CTCAE v5.0 for drug related adverse events. RESULTS: From February 2018 to September 2020, 54 consecutive patients were treated with REG and enrolled in this study: median age was 56, ECOG PS 0–1 in 91% of patients, MGMTmet in 53%, second surgery at the time of relapse were performed in 30% of enrolled patient, 41% of patients underwent steroids at baseline. At the time of analysis, median follow-up was 11.1 ms, 30 PTS (56%) had died and 50 PTS (93%) had progressed. Median OS was 10.2 ms (95%CI, 6.4–13.9), 12m-OS was 43%; median PFS was 2.3ms (95%CI, 1.3–3.3) and 6m-PFS was 18%. All patients were evaluable for response: disease control rate (DCR) was 46.3%; stable disease was reported in 38.8% and partial response in 7.4%. Age, MGMT status and corticosteroid use at baseline were not statistically significant on multivariate analysis for OS. Grade 3 drug-related adverse events (AEs) occurred in 10 patients (18%) and the most frequent were hand-foot skin reaction, asthenia and increased lipase and transaminases; 1 PT (2%) reported a grade 4 AE (rash maculo-papular). AEs led to REG dose reductions in 37% of patients and, it was permanently discontinued in 5%. No death was considered to be drug-related. CONCLUSION: We reported a large, mono-institutional "real world" experience of REG in recurrent glioblastoma patients. Overall, results are close to those reported in REGOMA trial although, we showed a longer OS. Toxicity was moderate and manageable. Encouraging clinical benefits of REG in recurrent GBM population were confirmed.

P14.20 QUALITY OF LIFE OF PATIENTS WITH NEWLY DIAGNOSED GLIOBLASTOMA DURING TTFIELDS THERAPY IN ROUTINE CLINICAL CARE: FIRST RESULTS OF THE TIGER STUDY

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