P14.24 BEVACIZUMAB TREATMENT IN ATYPICAL DISSEMINATED CHOROID PLEXUS PAPILLOMA IN ADULT PATIENTS

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BACKGROUND: Choroid plexus tumours represent less than 1% of brain tumours. Low-grade papilloma may be treated with gross total surgical resection, while in disseminated progressive atypical choroid plexus papilloma (APP), there is no standard treatment: various chemotherapy regimens have been reported. Since this tumour is characterized by a rich vascular component, antiangiogenic therapy is an attractive treatment. The use of Bevacizumab has already been reported in three patients. Authors expand this experience with 5 further patients diagnosed with progressive APP treated with bevacizumab. **MATERIAL AND METHODS:** Patients were recruited through the weekly Adolescent Young Adult French web conference. They have been treated with bevacizumab 10 mg/kg by intravenous injection each 2 to 3 weeks. Their clinical status and radiological response are reported: Karnofsky Index (KI), Pain Scale (PS) and RANO criteria were used. **RESULTS:** All our patients had a progressive disease prior to bevacizumab. Pt 1: 41 years old; APP with cranio-spinal dissemination; Previous treatments: local and cranio-spinal irradiation in 2012 and in 2014; surgery: complete and partial resection in 2010, 2014, and VP shunt in 2018; Bevacizumab: total of 33 cures in 18 months. Result: radiological and clinical stabilization. Pt 2: 58 years old; APP with cranio-spinal dissemination; Previous treatments: surgery: VP shunt and gross total resection, in 2006; VP shunt, in 2011. Bevacizumab: total of 4 cures, in 2 months. Result: radiological and clinical stabilization. Pt 3: 34 years old; APP with cranio-spinal dissemination; Previous treatments: surgery: gross total resection, in 1992, and shunt in 2008. Bevacizumab: total of 21 cures, in 21 months. Result: radiological and clinical stabilization. Pt 4: 63 years old; APP with cranio-spinal dissemination; Previous treatments: surgery: surgical resection and VP shunt in 2013; chemotherapy: temozolomide. Bevacizumab: 29 months (still treated). Result: radiological and clinical stabilization. Pt 5: 62 years old; APP with cranio-spinal dissemination; Previous treatments: surgery: gross total resection in 1999 and VP shunt in 2009; chemotherapy: Carboplatin Vespesid. Bevacizumab: 23 cures, in 14 months. Result: radiological stabilization and clinical amelioration. **CONCLUSION:** Despite their previous worsening disease, all patients obtained a stabilization or amelioration of their IK and PS under bevacizumab. Bevacizumab should be evaluated in a multicentric trial as standard therapy for disseminated metastasized progressive choroid plexus tumours.

P14.25 VENOUS THROMBOEMBOLIC EVENTS IN PATIENTS WITH BRAIN METASTASES: THE PICOS SCORE

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BACKGROUND: Venous thromboembolic events are significant complications in patients and possibly associated with an unfavorable outcome. Thrombosis risk is poorly defined for patients with brain metastasis, and available risk calculation scores are not validated for these patients. **MATERIAL AND METHODS:** We identified 811 patients with brain metastasis followed at our institution and screened electronic charts retrospectively for the occurrence of venous thromboembolic events, along with candidate risk factors. Risk factors were tested in uni- and multivariate analyses and finally integrated in a score model for risk prediction. **RESULTS:** Venous thromboembolic events were documented in 97 of 811 patients (12.0%). Primary tumors with high thrombogenicity (p=0.02, odds ratio 1.7, 95% CI 1.1–2.8), dexamethasone (p=0.011, odds ratio 2.27, 95% CI 1.5–4.5), chemotherapy (p=0.005, odds ratio 3.4, 95% CI 1.6–7.5), BMI > 35 kg/m2 (p=0.002, odds ratio 3.4, 95% CI 1.6–7.5) and immobilization (p=0.003, odds ratio 2.4, 95% CI 1.3–4.3) were confirmed as independent predictors of VTE. We derived a score model for venous thromboembolic event prediction, the PICOS (thrombogenic Primary, Immobilization, Chemotherapy, Obesity, Steroids) score (0–7 points). Receiver Operating Characteristic Curve Analysis demonstrated its prognostic accuracy (AUC=0.71, 95% CI 0.64–0.77), and its predictive capability was superior to that of other scores proposed for the evaluation of venous thromboembolic event risk such as the Khorana (AUC=0.51) or CONKO (AUC=0.52) scores. **CONCLUSION:** We report a rate of venous thrombotic events of 12.0% in our cohort of 811 patients with brain metastasis. We define a risk model for prediction in of venous thrombotic events in patients with BM, the PICOS score. It may become a valuable tool for the identification of brain metastasis patients at high risk for venous thromboembolic events and be helpful for guidance of clinicians towards decision whether to start thrombosis prophylaxis. Further, the PICOS score might be used for stratification in controlled studies.

P14.26 AUTOIMMUNE DISEASE-ASSOCIATED PRIMARY CNS LYMPHOMA: META-ANALYSIS AND REVIEW OF LITERATURE

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BACKGROUND: Recent studies suggest a relatively high prevalence of autoimmune diseases (AD) among primary CNS lymphoma (PCNSL) patients, however the literature is limited to case reports. To gain a better understanding of AD-associated PCNSL we reviewed all previous cases described in the literature. **MATERIAL AND METHODS:** We mined the MEDLINE database using the search terms 'central nervous system lymphoma' or 'CNS lymphoma' along with AD-related terms, such as 'immunosuppression', 'autoimmune', the name of various AD, or commonly prescribed immunosuppressants. We selected 35 records for qualitative synthesis of data. We identified 43 AD-associated PCNSL in the literature and added five unpublished cases from our institution. Clinical, imaging and outcome data were collected. **RESULTS:** Most prevalent ADs were systemic lupus erythematosus (22.9%), multiple sclerosis (18.8%) and myasthenia gravis (14.6%). Male-to-female ratio was 1:2 and median age at diagnosis was 57 years (range: 2.5–88). Most common immunosuppressants included prednisone (58.7%), mycophenolate (43.5%), and azathioprine (41.3%). Median interval from diagnosis of AD until diagnosis of PCNSL was 96 months (range: 11–360). Lesions typically localized to the hemispheres (64.1%) and displayed peripheral contrast enhancement (75.8%). Histology revealed diffuse large-B-cell lymphomas (76.7%) and Epstein-Barr virus (EBV) positivity (78.4%). Treatment included reduction of immunosuppression (100%) and chemotherapy (85.4%) in most cases. Median overall survival was 31 months. **CONCLUSION:** AD-associated PCNSL are characterized by peripheral contrast enhancement on imaging and EBV positivity. AD that require severe immunosuppression appear over-represented. Median interval of immunosuppression and overall survival seem longer than in other immunodeficiency-associated PCNSL.

P14.27 THE SIGNIFICANCE OF MULTICENTRIC NONCONTRAST-ENHANCING LESIONS DISTANT FROM SURGICALLY RESECTED GLIOBLASTOMA: CASE SERIES OF 3 PATIENTS

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BACKGROUND: Glioblastoma is the most malignant primary brain tumor. The tumor location and multiplicity plays an important role in surgical and further treatment. The incidence of multiple lesions at the time of diagnosis was known as 1–20%, which showed a poor prognostic factor. Most researches has focused on multiple contrast-enhancing lesions, however, multicentric non-enhancing lesions distant from glioblastoma has been rarely evaluated. The authors reported the case series of the patient who showed multicentric non contrast-enhancing lesions without connection to histologically-proven glioblastoma. **MATERIAL AND METHODS:** Multicentric non contrast-enhancing lesions were defined as areas of FLAIR hyperintensity and mass effect without post-contrast enhancement, separated from the histologically-proven glioblastoma in a newly diagnosed disease. Three patients who showed distant non-enhancing lesions with appearance of a multicentric low-grade glioma were included in this study. The typical enhancing lesions were surgically resected and standard chemo-radiotherapy was followed in all patients. **RESULTS:** All patients were male and their age was 38, 60 and 65 years old respectively. Multicentric tumor location was as follows: Case 1, left frontal lobe with non-enhancing lesion in left parahippocampal gyrus; Case 2, left parietal with non-enhancing lesion in left anteromedial temporal lobe; Case 3, left thalamus with non-enhancing lesions in both basal frontal and right temporal lobe. Pathologically, the resected enhancing tumor revealed glioblastoma in 2 patients and diffuse midline glioma in 1. All tumors were IDH-wild type. The resected enhanced lesion showed no progression but all non-enhancing lesions developed contrast-enhancing tumors at 3, 13 and 17 months after initial treatment, with high tracer uptake on 18FDG-PET or 18FDOPA-PET. Despite multidisciplinary treatment, two patients died from disease progression at 30 and 32 months after diagnosis and one patient is still alive with overall survival of 15 months. **CONCLUSION:** The appearance of multicentric non-enhancing lesions distant from a typically enhancing tumor showed an uncommon finding in glioblastoma and

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