confirmed GMFb:actin complexes. Subcellular localization of GMFb only changed with cytochalasin D. In primary embryonic forebrain cultures and RA treated cells, GMFb localized to axons and growth cones. Transfection of wild-type GMFb but not a C-terminal deletion mutant promoted process outgrowth. Phosphorylated GMFb (pGMFb) expression was found in adult brain and low grade gliomas, but not in embryonic brain or glioblastoma. Conclusions: GMFb binds directly to the actin cytoskeleton and is an ADF. GMFb"s phosphorylated form is highly expressed in the differentiated nervous system and low grade gliomas. Future studies will determine whether GMFb or pGMFb expression correlates with patient survival. Using the GMFb knockout mouse, the role of GMFb in glioma tumor invasion and signaling will be addressed in vivo.

CLINICAL POSTER VIEWING

14 June 2014

CP1

doi:10.1017/cjn.2014.80

Living with a primary malignant brain tumour: Identifying the elephant in the room

BM Sabo[1], S Walling[2], K Vickers[3], B Sowinski[3], E Snelgrove-Clarke[4]

Halifax, Nova Scotia: [1]Dalhousie University School of Nursing and Capital District Health Authority (CDHA) Psychosocial Oncology Team, Cancer Care Program; [2]CDHA Faculty of Medicine; [3]CDHA; [4]Dalhousie School of Nursing, IWK Health Science Centre

From the time of diagnosis of a primary malignant brain tumor (PMBT) and throughout the illness trajectory, the patient and intimate partner face many psychosocial challenges ranging from fear and uncertainty to hope and loss. While many patients diagnosed with cancer may go on to live with cancer as a chronic illness, this may not be said of individuals diagnosed with a PMBT, in particular those diagnosed with a glioma, the most common form of brain tumor. Gliomas are associated with a short disease trajectory and multiple deficits (functional, cognitive and psychiatric). What makes the PMBT experience unique from other cancers is that the intimate partner must not only deal with the diagnosis of cancer in their spouse but the accompanying personality, functional and behavioral changes wrought by the disease. It is also not uncommon for the spouse to grieve the loss of the person they once knew often before physical death occurs. This presentation will provide an overview of: 1) key stressors faced by patients and families; 2) and, strategies to more effectively support psychosocial health and wellbeing for patients and families living with and affected by PMBTs. Highlights will be drawn from an ongoing couples study exploring quality of life within the context of PBMT as well as the authors psychotherapy practice.

CP2

doi:10.1017/cjn.2014.81

Primary spinal cord glioblastoma: A systematic review

K Zhang[1], A Bhatia*[2], E Lok1, ET Wong[1]*

[1]Brain Tumor Center & Neuro-Oncology Unit, Beth Israel Deaconess Medical Center and [2]Massachusetts General Hospital, North Shore Medical Center

Background: Primary spinal cord glioblastoma (PSCG) accounts for only 1.5% of all spinal cord tumors. The objective of this study was to gain a more in depth understanding of the clinical presentation of PSCG and factors that may affect patient survival. Methods: A systematic literature search was conducted in PubMed, covering the years from 1936 to 2013. Inclusion criteria included primary tumor originating in the spinal cord, with location specified and patient demographics. Results: From 522 citations, 49 met the inclusion criteria and most were in the form of case reports or case series. There were 64 women and 55 men (n=119). Their median age was 20 (range 0.7 to 88) years. The median overall survival (OS) was 10.0 (95%CI 0.6 to 72.0) months for those with age d59 years compared to 1.9 (95%CI 1.0 to 20.0) months for those with age >59 years (P=0.0176). The most commonly affected region was the thoracic spinal cord (n=54) compared to cervical (n=47) and lumbar (n=33). Radiotherapy prolonged patient survival, with median survival of 12.0 (95%CI 1.0-72.0) months versus 5.0 (95%CI 0.6 to 16.6) months, respectively (P<0.0001). Patients with PSCG located in the cervical spinal cord had significantly shorter median overall survival than those with PSCG at other sections of the spinal cord, 8.0 (range 1.0 to 34.0) months versus 11.5 (range 0.6 to 72.0) months, respectively (P=0.0383). Conclusions: Older age and cervical spinal cord location are unfavorable prognostic factors in PSCG. Treatment with radiation therapy is associated with prolonged patient survival.

CP3

doi:10.1017/cjn.2014.82

T-Cell primary central nervous system lymphoma: A systematic literature analysis

H Vo[1], A Bhatia*[2], E Lok[1], ET Wong[1]*

*[1]Brain Tumor Center & Neuro-Oncology Unit, Beth Israel Deaconess Medical Center and [2]Massachusetts General Hospital, North Shore Medical Center (*VH and BA equal contributors)*

Background: T-cell PCNSLs comprise less than 4% of all primary central nervous system lymphomas (PCNSLs) and appear to have a worse prognosis than B cell PCNSLs. Objective of this study was to gain a more in depth un1derstanding of clinical presentation of the disease and treatment outcomes that may affect patient survival. Methods: Systematic review of the literature was performed using PubMed database from 1983 to 2013. Inclusion criteria consisted of articles having detailed

information of age, gender, location of the tumor and treatment. Results: From 200 citations, 136 patients from 90 articles were identified with T-cell PCNSL and majority of them were case reports or case series. There were 16 cases reported between years 1980-1990, 54 from 1990-2000, and 66 from 2000-2013. Men outnumber women by 2:1. The median age of the patients was 42.5 (range 2 to 79) years and the median overall survival (OS) was 14.0 (95%CI 13.3 to 20.1) months for those with age d64 years compared to 8.0 (95%CI 4.8 to 14.1) months for those with age >64 years (P=0.0033). Fifty-one patients received methotrexate-based chemotherapy and only 46% achieved a complete response (CR). There was no difference between the Kaplan-Mier overall survival of patients diagnosed with solitary versus multiple tumors (χ^2=0.3, P=0.6090), treated versus not-treated with methotrexate (χ^2=0.1, P=0.7420), and achieved CR versus non-CR status after methotrexate therapy (χ^2=0.4, P=0.5470). Conclusion: T-cell PCNSL appears to be more aggressive and less responsive to methotrexate-based treatment than the majority of PCNSLs.

CP4

doi:10.1017/cjn.2014.83

Clival chordoma metastatic to right lateral ventricle: A case report

G Bose, A Algird, B Lach, A Whitton, A Torres-Trejo, M Bennardo, and K Reddy*

Background. Clival chordomas are uncommon, locally invasive tumours that usually occur in the base of the skull. On rare occasions, clival chordomas may metastasize to the cervical cord, lymph nodes, lungs and bone. Intracranial or intraventricular metastases are very uncommon. We present the first reported case of clival chordoma spreading to the ventricular system Clinical presentation. This 44-year-old man initially presented with worsening diplopia and headache over one year. MRI imaging showed a clival lesion extending upwards to the sellar floor. Partial surgical removal through an extended endoscopic transphenoidal approach was performed and pathological examination confirmed clival chordoma. Following 38 treatments of intensity-modulated radiation therapy, the patient had recurrence of his diplopia and developed cognitive decline within two years. Follow up monitoring by MRI imagining showed new, isolated lesions in the sub-frontal area and in the right lateral ventricle. A biopsy of the intraventricular lesion revealed chordoma. Conclusion: Chordomas are rare but aggressive tumours requiring close monitoring. Furthermore, the ventricular system may be a hitherto unrecognized site of metastasis.

CP5

doi:10.1017/cjn.2014.84

Stereotactic radiosurgery for refractory trigeminal neuralgia

J Broomfield, A Whitton, R DeVilliers, T Gunnarsson, C Hann, S Gauld, C DiFrancesco, T Chow, J Greenspoon

Juravinski Cancer Centre, McMaster University, Hamilton, Ontario

INTRODUCTION: Idiopathic trigeminal neuralgia (TN) is a rare condition causing severe facial pain along the trigeminal nerve. Primary treatment is pharmacological, with surgery reserved for patients with refractory pain. Stereotactic radiosurgery (SRS) has recently emerged as a non-invasive alternative. Here, we report the largest Canadian single-institution experience utilizing SRS in the functional management of TN. METHODOLOGY: Retrospective review of all TN patients treated with SRS at the Juravinski Cancer Centre. Collected data included patient demographics, TN characteristics, SRS details, pain response and toxicities. RESULTS: Between 2011-2014, 25 patients were treated using our CyberKnife unit. All patients received a single fraction of 60 Gy prescribed to a 6 mm segment of the trigeminal nerve root. Maximum target point dose was 75 Gy and maximum brainstem point dose was 37.5 Gy. Median age was 69 years (41-84). Pain was isolated in more than half (54%) the cohort, most commonly within the maxillary branch (36%). Twenty-one patients completed at least one follow-up visit, with median time from SRS of 4 months (1.5-5.1). 42%, 42%, 8% and 8% of patients experienced complete resolution, partial improvement, no change and worsening of their TN, respectively. Median time from SRS to pain response was 14 days (1-60). No serious (e grade 3) acute toxicities were observed. CONCLUSION: The use of SRS in the management of TN is safe and effective. Mature follow-up is required to evaluate important long-term clinical outcomes including sustained pain response and toxicity profile.

CP6

doi:10.1017/cjn.2014.85

Predictors of treatment response of cystic brain metastasis to gamma knife radiosurgery

*A Ghare, O Khan, G Zadeh**

Arthur & Sonia Labatt Brain Tumour Center, University of Toronto, Toronto, Ontario

The aim of this retrospective study was to determine prognostic factors for changes in the volumes of cystic brain metastases after treatment with Gamma Knife radiosurgery (GKS). Our institutions database of 71 patients with cystic brain metastases treated with GKS from 2006 to 2010 was used for patient selection. 34 patients with primary lung (n=20), breast (n=9), or colorectal cancers (n=5) were selected. Volumetric analysis was done on tumours using treatment date and latest MRIs to measure the cystic and solid components of all GKS-treated metastases and calculate growth rate. Clinical data and dosimetry parameters were also reviewed to analyze factors that led to either an increase or decrease of cystic and/or overall tumour volumes. Metastatic lesions from the lung had significantly larger cystic/total volume