

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  $\leq$ 64 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 ( $\chi^2=0.3$ , P=0.6090), treated versus not-treated with methotrexate ( $\chi^2=0.1$ , P=0.7420), and achieved CR versus non-CR status after methotrexate therapy ( $\chi^2=0.4$ , 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

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#### **Clival chordoma metastatic to right lateral ventricle: A case report**

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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 imaging 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

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#### **Stereotactic radiosurgery for refractory trigeminal neuralgia**

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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

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

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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