

**Introduction:** Tumour metastases that involve the scalp are unusual. We report the case of a patient with a lung adenocarcinoma that was metastatic to both the skull and the scalp. **Case Report:** A 61-year-old female presented with a scalp mass that increased in size from one cm to 10 cm, over a 7-month period. She had a recent history of 20lb weight loss and anorexia. CT scan revealed a soft tissue mass in the left frontal scalp involving the underlying bone and thickening of dura. Magnetic Resonance Imaging (MRI) three months later exhibited rapid growth of the lytic lesion. Bone scan showed no other primary lesions. Intraoperative biopsy specimen displayed histological characteristics of an adenocarcinoma. The patient was pan-scanned and a primary upper lobe lung lesion with extensive hilar lymphadenopathy was identified. She subsequently underwent operative resection of the lesion and cranioplasty. Pathological examination of tumor biopsy showed a moderately differentiated adenocarcinoma characterized by large irregularly shaped acini embedded in a desmoplastic stroma with a mixed acute and chronic inflammatory infiltrate. Mitotic figures were encountered. The neoplastic cells were immunopositive for CK-CAM5.2, CK 7 and TTF-1 (nuclear), and immunonegative for CK 20, features in keeping with adenocarcinoma. **Discussion:** We describe an unusual case of lung adenocarcinoma that became metastatic to both skull and scalp. The histopathological features and differential diagnosis of such lesions are discussed in the context of the literature.

#### CP16

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#### **A mixed method study of a peer support intervention for newly diagnosed primary brain tumour patients**

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A pilot program at the BC Cancer Agency enlisted trained, experienced primary brain tumour patients (veterans) who had previously completed initial treatment to meet with newly diagnosed brain tumour patients. The veteran patients participated in a training program with a psycho-oncology research clinician, then met with new patients for approximately one hour to answer general questions, provide support and offer information about other available supportive resources for patients and families. Supervision and support were provided to the 2 veterans throughout their meetings with 10 new patients. After the meetings, the new patients and veteran patients responded to questionnaires and exploratory interviews about the benefits and drawbacks of this type of support, resulting in quantitative and qualitative findings concerning the effectiveness of the intervention. There were multiple benefits for new patients and veteran patients alike, and no significant disadvantages for either group. Future directions for research and suggestions for modifications to the intervention are also discussed.

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#### **Can expression of apoptotic proteins in glioblastoma serve as prognostic biomarkers?**

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**Introduction:** MGMT promoter methylation is the only confirmed prognostic biomarker for GBM, so determining additional biomarkers is important. We are studying BNIP3 (Bcl-2 Nineteen kDa Interacting Protein), AIF (Apoptosis Inducing Factor), DR5 (Death Receptor 5), and MCL-1 (Myeloid Cell Leukemia Sequence 1). BNIP3 localization to the nucleus confers resistance to temozolomide and represses AIF and DR5 expression; both promote apoptosis at higher levels. In contrast, MCL-1 downregulation promotes apoptosis in cancer cells. We hypothesize GBM patients whose tumors show decreased MCL-1, increased AIF and DR5, and/or cytoplasmic BNIP3 expression will have an improved prognosis. **Methods:** Using the Manitoba GBM cohort (80 patients), BNIP3 subcellular localization was determined through immunofluorescence. MGMT promoter methylation was assessed using accepted protocols. Immunohistochemistry was performed on GBM FFPE sections using commercial antibodies and were scored for protein expression. Tumor scores were compared to progression free survival (PFS) and overall survival (OS). **Results:** There was a trend towards poor outcomes with nuclear BNIP3 sub-cellular localization; however, statistical significance was not reached. However, MCL-1 expression did not correlate with patient prognosis. Assessment of AIF and DR5 expression and patient outcomes is ongoing. **Conclusions:** BNIP3 localization to the nucleus may be a prognostic biomarker but this study will have to be extended to other GBM patient cohorts. Based on our study, MCL-1 is unlikely to be a prognostic marker for GBM.

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#### **An interesting case of neurofibromatosis type 2**

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Neurofibromatosis (NF) is a genetic disorder of neural crest-derived cells that affect growth of neural tissues. It is divided into three categories: (a) von Recklinghausen's neurofibromatosis or