

and renal lesions was operated upon 4 years ago for a large symptomatic cervicomedullary cystic and solid tumor. 2 years after surgery the tumour recurred and further removal was unsuccessful due to medullary adhesions. Radiation was given to the posterior fossa area and to several small nodules over the cauda equina resulting in severe pain. Serial follow up imaging revealed diffuse leptomeningeal dissemination increasing in size of the suprasellar region, ambient cistern and Sylvian fissures. Clinically, she has been stable with small dose of steroids and VP shunt insertion for papilledema. **Results:** Review of the literature consists of 2 series of 7 and 21 patients each with leptomeningeal dissemination involving sporadic HB and VHL associated HB. Leptomeningeal dissemination is estimated at about 4.3%. It is postulated that the tumour starts in the Pia and spreads in an extra medullary fashion throughout the subarachnoid spaces. **Conclusions:** Long term recurrence has been noted raising the question of aggressive treatment with some drug therapy related to angiogenesis is postulated.

## P.038

### Investigating the role of long non-coding RNAs in glioblastoma multiforme

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**Background:** Malignant gliomas are the most common and deadly brain tumors. Mean survival rate for a patient diagnosed with a glioblastoma multiforme (GBM) remains slightly over one year. Standard of care consists of treatment with temozolomide (TMZ) and radiotherapy. Recent work has highlighted functions of long non-coding RNAs (lncRNAs) in GBM progression and TMZ response even though the information regarding these newly discovered molecules is sparse. The overarching objective of this project was thus to assess the expression of select lncRNAs in GBM tumor samples and in models of TMZ resistance. **Methods:** A qRT-PCR-based approach was undertaken to measure six lncRNAs in 19 primary GBM samples, four GBM cell lines and in-house developed TMZ-resistant GBM cells. **Results:** Elevated levels of Hotair and H19 were observed in primary GBM tumors while decreased expression of MEG3 was recorded in the same samples. Interestingly, levels of PANDA increased 3.4-fold in GBM cells resistant to TMZ when compared with their sensitive counterparts. **Conclusions:** Overall, this work provides evidence of lncRNA deregulation in GBM tumors and reveals a previously unexplored lncRNA potentially involved in TMZ resistance. Modulation of lncRNA targets via RNAi-mediated approaches is envisioned to clarify their function and to strengthen their position as therapeutic options in GBMs.

## P.039

### In-hospital endocrinology consultation in post-operative pituitary surgery: is it necessary?

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**Background:** In-hospital Endocrinology consultation (IHEC) following transsphenoidal surgery is often routine but may be

unnecessary, lead to excessive blood testing, and prolong in-hospital stay. Purpose of this study: to determine whether the necessity of IHEC can be predicted by a standardized operative assessment tool. **Methods:** Retrospective review of all transsphenoidal surgeries from January 1, 2016, when we instituted an operative assessment tool to identify patients for which IHEC is required. Minimum follow-up: 3 months. **Results:** 78 patients (42 male; mean age: 57 yrs); the assessment tool identified 17 patients (22%) for IHEC and accurately identified those who would not require IHEC. IHEC patients had longer hospital stay (8.3 vs. 2.9 days), higher rate of new post-operative hormonal deficit (17.6% vs. 0%) and higher 30-day readmission rates (35% vs. 16%). Less than 10% had transient symptoms attributable to steroids; there were no long-term complications from routine post-operative steroid administration. **Conclusions:** Use of our operative assessment tool shows that at least three quarters of pituitary surgery patients can be managed safely without IHEC. Our data indicate that identifying these patients may reduce in-hospital stay and costs with no evidence of compromise of hormone-related care.

## P.040

### New-onset secondary hormone deficiency in patients with incidental versus clinically manifesting sellar masses

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**Background:** Secondary hormonal deficiency (SHD) in patients with sellar masses (SM) is associated with significant morbidity. Purpose: to compare long-term risk of new-onset SHD in SM found incidentally (ISM) versus those clinically manifesting (CMSM). **Methods:** From the Halifax Neuropituitary Program's database, we identified all patients having non-functioning and non-pituitary SM from January 1, 2006, with  $\geq 12$  months follow-up. **Results:** There were 214 CMSM (108 with baseline SHD) and 148 ISM (37 with baseline SHD) patients (mean follow-up: 5.7 and 5.0 years, respectively). In patients who underwent early surgery ( $<90$  days from diagnosis), 3-month post-op hormonal function was considered baseline. Despite unchanged tumour size in over 95%, 129 (35.6%) developed new-onset SHD at up to 120 months. The risk of developing new-onset SHD was similar in CMSM and ISM groups (HR = 1.10; CI= 0.69-1.75; p= 0.7), and in surgical and non-surgical patients (HR=1.24; CI= 0.59-2.61; p = 0.58). **Conclusions:** More than one third of patients with non-functioning or non-pituitary SM, presenting either with clinical manifestations or as incidental lesions, will develop new-onset SHD. Furthermore, SHD may develop several years later and despite stability of tumors, highlighting the need for ongoing, long-term hormonal assessment.