

venous return, in which case one may attempt a complete resection of the lesion, with sacrifice of part of the sinus, as in our second case. In the region of torcula, however, one should be very careful not to damage it

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Case report of a serous endometrial carcinoma metastasizing to the brain

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Background: Endometrial carcinoma (EC) is a rare cause of central nervous system metastases, with only 115 cases reported in the literature. There have only been 4 cases reported in the literature for the serous carcinoma subtype. This case study describes a new case of serous carcinoma metastasizing to the brain and demonstrates some of the potential characteristics of this subset. **Case:** A 77 year old female presented to the emergency department with a 2 week history of progressive left sided weakness and speech difficulties, and a known history of EC diagnosed approximately 3 years earlier. Imaging showed a right temporoparietal tumour. She underwent debulking of this tumour and was found to have a metastasis from her previously known serous carcinoma. **Results:** In comparing the serous subtype to the 115 known cases, many characteristics show similar patterns to EC as a whole; there could be a predominance to infratentorial lesions with the serous subtype, as 2/4 known metastases were cerebellar compared to only 25% of all endometrial carcinomas. **Conclusions:** There are possibly different characteristics of metastasizing of various EC subtypes. Before any conclusions can be drawn about the characteristics of any subtype, more data needs to be available for accurate interpretation.

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Hemangiopericytoma from meningioma - is diffusion weighted imaging useful in their differentiation?

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Purpose: Hemangiopericytoma and Meningioma appear similar on routine diagnostic imaging. Diffusion weighted images (DWI) has been used to characterize different types of tumors. The purpose of this study was to assess whether DWI can be used to differentiate hemangiopericytoma from meningioma on diagnostic imaging. **Materials and Methods:** In a retrospective study, our tumor database was analyzed for diagnosis of hemangiopericytoma with DWI available at the time of diagnostic imaging. These patients were then matched based on location and size of the tumor in a ratio of 1 hemangiopericytoma vs. 2 matched meningioma. The minimum and mean Apparent Diffusion Coefficient (ADC) was measured in the tumor and the contralateral Normal Appearing White Matter (NAWM) to calculate a normalized ADC (nADC) as the ratio of the two. The two tumors were also subjectively assessed for their heterogeneity. **Results:** Seven patients with histopathological diagnosis of hemangiopericytoma were matched based on size and location with 14 patients of meningioma. Primary meningioma were significantly homogeneous ($p < 0.001$) in appearance compared to hemangiopericytomas. Hemangiopericytomas had a higher mean ADC compared to that of

meningioma ($p < 0.001$). **Conclusion:** Hemangiopericytoma showed heterogeneity on DWI and significantly higher ADC compared to that of meningiomas in our small study. This needs to be confirmed in a study with a larger sample size.

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Natural history of the anterior visual pathway after surgical decompression in patients with pituitary tumors

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Introduction: Visual dysfunction is one of the primary indications for surgical management of pituitary tumors with the goal of terminating the progressive decline in vision. Unfortunately, it is difficult to predict how successful surgical decompression will be in these patients. The purpose of this study was to assess the structural changes seen in the anterior visual pathway after pituitary tumor resection. **Methods:** 13 patients (7F) underwent endoscopic tumor resection for pituitary macroadenoma. Each patient underwent a full ophthalmologic assessment including optical coherence tomography (OCT) preoperatively and postoperatively at 3-6 months and 9-12 months. Post-surgical changes in the retinal nerve fiber layer thickness (RNFLT) for each eye (N=26) were compared in cases with normal preoperative RNFLT (greater than $80\mu\text{m}$) versus those with abnormally thinned RNFLT (less than $80\mu\text{m}$). **Results:** For 9 cases with thinned RNFLT preoperatively (mean= $70.1\mu\text{m} \pm 8.5$), there was a significant decline in RNFLT at 3-6 months follow-up (mean change= $-3.8\mu\text{m}$; $p=0.002$), which did not recover even at 9-12 months after surgery (mean= $67.6\mu\text{m} \pm 12.7$). Contrastingly, eyes with normal RNFLT preoperatively (mean= $89.7\mu\text{m} \pm 9.4$) did not show significant postoperative thinning (mean change= $-1.9\mu\text{m}$). **Conclusion:** Even after a complete surgical decompression, there are ongoing structural changes in the anterior visual pathway in patients with compressive neuropathy. There may be a point of no return where surgical decompression may not prevent further structural degeneration.

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Familial pineal tumours in two siblings

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Background: The occurrence of familial brain tumours, particularly gliomas, hemangioblastomas in Von Hippel Lindau and other endocrine neoplasia, is well documented in the literature. On the other hand, familial pineal tumours are extremely rare and only a handful of cases have been reported. **Methods and Results:** Two female siblings presented at ages 12 and 15 with histories of progressive headaches. Neurological examination in each was completely normal. Magnetic Resonance Imaging confirmed the presence of cystic and solid lobulated pineal lesions with mild enhancement, consistent with pineocytoma, in both girls. Follow-up for 15 years in the first sibling and 4 years in the second showed no evolution in radiological or clinical manifestations. No active treatments have been carried out. **Conclusion:** The occurrence of familial pineal lesions raises the possibility of a close relationship between heredity and oncogenicity, and should be further explored.