Suprasellar epidermoid tumor

A 30 years-old female presented with bitemporal hemianopsy and headaches. An MRI study of the cranium was performed.

**Imaging Findings:**

A 30 years-old female presented with bitemporal hemianopsy and headaches. An MRI study of the cranium was performed with a 1.5 T MR scanner, with SE T1, FSE T2, post gadolinium SE T1 weighted sequences on three planes, to exclude a suprasellar mass. A mass lesion of the suprasellar region was detected consistent with epidermoid tumor. After radiologic diagnosis, surgical resection of the mass was performed and the histopathologic diagnosis was same as the radiologic diagnosis.

**Discussion:**

Epidermoid cysts are nonneoplastic tumorlike lesions of cranium. They probably arise from inclusion of ectodermal epithelial elements at the time of neural closure or during formation of the secondary cerebral vesicles. They are slow growing benign lesions that expand gradually over many years and therefore typically present in adulthood. They represent 0.2 to 1% of intracranial tumors and 5% of CPA tumors. Most intracranial epidermoid tumors are confined to basillar CSF cisterns (90%). 40% of these tumors occur in the CPA cistern whereas 15% of them are seen in the suprasellar and parasellar cisterns. 10% of epidermoids are extradural, intradiploic. On CT epidermoids are observed as hypodense, nonenhancing cystic masses and 25% of them consist patchy peripheral calcification. On MRI signal intensities are often similar to CSF; hypointense on T1-WI, hyperintense on T2-WI compared with brain parenchyma. A small percentage of these lesions may show high signal intensity on T1-WI due to hemorrhage or high lipid content. It is difficult to differentiate epidermoids from arachnoid cysts by conventional SE sequences. Currently diffusion weighted imaging or FLAIR imaging are used; epidermoid is hyperintense to CSF, whereas arachnoid cyst follows CSF. If the lesion shows T1 shortening, it can be confused with dermoid or lipoma, but an epidermoid will not demonstrate chemical shift artifact and signal will not suppress after application of a fat saturation pulse. Treatment of epidermoid tumors consist surgical resection but lesions may recur following subtotal resection.

**Differential Diagnosis List:** Suprasellar epidermoid tumor

**Final Diagnosis:** Suprasellar epidermoid tumor
References:


**Description:** Axial T1-WI shows a well delineated hypointense mass, compressing adjacent brain parenchyma with mild mass effect. **Origin:**
Description: Axial T2-WI shows a well delineated hyperintense mass, compressing adjacent brain parenchyma with mild mass effect, no edema is observed. Origin:
**Description:** Axial PD-WI shows a well delineated slightly hyperintense mass, compressing adjacent brain parenchyma with mild mass effect. **Origin:**
Description: Axial post-contrast material T1-WI shows a well delineated hypointense mass, compressing adjacent brain parenchyma with mild mass effect. No enhancement or edema is observed.

Origin:
Description: Sagittal post-contrast material T1-WI demonstrates a hypointense mass filling the suprasellar cistern, encasing optic chiasm and optic tracts. The mass extends preponine cisterna posteriorly. Origin:
**Description:** Coronal post-contrast material T1-WI demonstrates a hypointense mass filling the suprasellar cistern, encasing optic chiasm, optic tracts and supraclinoid portions of ICAs. Bilateral opticochiasmatic recesses are obliterated. The mass compresses both frontal lobes from the inferior surface, more evident on the left. There is no enhancement of the mass. **Origin:**