

Rathke's Cleft Cyst

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Rathke's pouch is a normal component of embryological development, which eventually forms the pituitary gland. This pouch normally closes early in fetal development, but a remnant often persists as a cleft that lies within the pituitary gland. Occasionally, this remnant gives rise to a large cyst, called Rathke's cleft cyst (RCC), that causes symptoms. Symptomatic RCCs are relatively uncommon lesions, accounting for less than one percent of all primary masses within the brain. RCCs are usually asymptomatic and are found incidentally at autopsy or MRI imaging. RCCs may also present with visual disturbances, symptoms of pituitary dysfunction, and headaches. RCCs are diagnosed with MRI or CT scans of the brain or pituitary. Other possible diagnoses that are considered when a cystic mass is seen in the area of the pituitary include arachnoid cyst, a cystic pituitary adenoma, or craniopharyngioma. Symptomatic RCC warrant transsphenoidal surgical drainage and or/ excision. The recurrence rate following surgical treatment is extremely low.

TSH Secreting Tumor

(Thyroid Simulation Hormone)

These tumors represent only 1-2 percent of all pituitary adenomas that are surgically removed. They typically cause excessive thyroid function (hyperthyroidism). Because many patients first have thyroid treatment of some sort, these tumors are often aggressive and invasive in their growth pattern. Most patients who have not had prior thyroid therapy will have an elevated thyroxine (T4) and a markedly elevated TSH level. MRI and CT of the pituitary with and without contrast agents typically demonstrate the adenoma. First line therapy is transsphenoidal removal. Invasive and very large tumors may require an additional therapy including thyroid ablation or pituitary radiation therapy, preferably with stereotactic radiation.