

# IMAGES OF THE PITUITARY

## **Bilateral Cerebral Aneurysms Impinging on the Pituitary**

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A 41-year-old female presented with buzzing in her head, insomnia, fatigue, depression, decreased libido and irregular periods. Partial hypopituitarism was suspected and laboratory evaluation revealed low normal IGF-1 of 135 ng/dL (118-298 ng/dL) with normal thyroid and cortisol axes. An arginine-GHRH stimulation test of growth hormone (GH) revealed peak GH by RIA of 5.2 ng/mL {normal > 9 ng/mL (1)}.

A dynamic pituitary MRI (Panel A) revealed a left cavernous carotid aneurysm, impinging upon the left side of the anterior pituitary. A cerebral angiogram demonstrated a 3 mm cavernous aneurysm in the right carotid artery (Panel B) and a 7 mm cavernous aneurysm in the left carotid artery (Panel C). Because there

was no intradural extension, surgery was not indicated and the patient was instructed to maintain strict blood pressure control. She was started on recombinant human GH with improvement in energy and sleep.

Cerebral aneurysms impinging on the pituitary have been reported to cause partial or total hypopituitarism (2-4). Growth hormone is the most frequent deficient of the pituitary hormones in patients with pituitary disease (5). We believe this is the first report of isolated growth hormone deficiency arising from bilateral cerebral aneurysms impinging on the pituitary. In a patient with symptoms of growth hormone deficiency or hypopituitarism as well as symptoms suggestive of a cerebral aneurysm (buzzing in head), appropriate imaging with MRI and/or cerebral angiogram is recommend.

### **Acknowledgments**

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### **References**

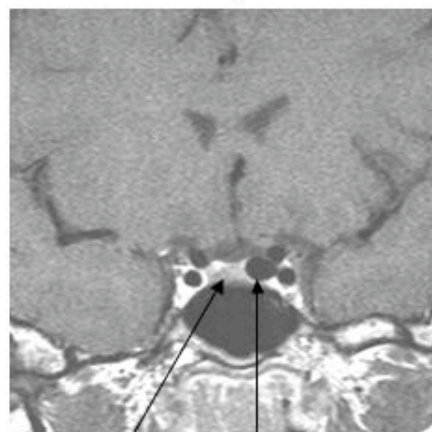
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**Figure Legend**

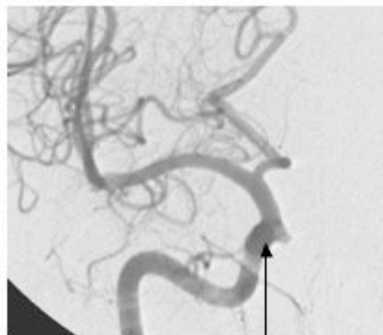
FIG.1. A dynamic pituitary MRI (Panel A) revealed a left cavernous carotid aneurysm, impinging upon the left side of the anterior pituitary. A cerebral angiogram demonstrated a 3 mm cavernous aneurysm in the right carotid artery (Panel B) and a 7 mm cavernous aneurysm in the left carotid artery (Panel C).

A. Dynamic Pituitary MRI

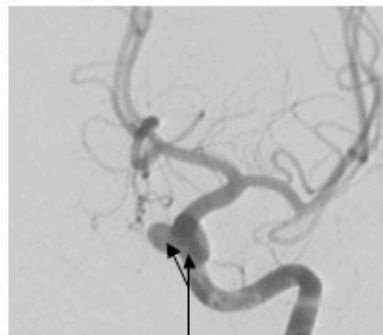


Pituitary  
Left aneurysm

B. Right cerebral angiogram C. Left cerebral angiogram



Right aneurysm



Left aneurysm