Case Reports and Clinical Images

Pituitary Apoplexy Presenting as Acute Headache

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Abstract
Pituitary apoplexy (PA) is an acute and potentially vision-threatening clinical condition caused by hemorrhage or infarction of the pituitary gland. PA usually occurs in a pre-existing pituitary tumor. Severe headache is almost universal and is often accompanied by hormonal deficiencies that require immediate empiric treatment. Magnetic resonance imaging is the recommended diagnostic imaging modality. Patients without acute neurological decline can be managed conservatively.

Case
A 20-year-old female was admitted to hospital with severe and sudden onset of headache. She had no focal neurological complaints, nausea, or vomiting. She had no pre-existing medical conditions or relevant family history. Her only medication was ethinyl estradiol/drospirenone for birth control. She smoked a package of cigarettes daily but did not use alcohol or any recreational drugs. Her vital signs and examination were normal with no ocular palsies or vision impairment.

Computed tomography (CT) with contrast of the head established pituitary hemorrhage without suprasellar extension or mass effect (Figure 1). This was confirmed on contrast-enhanced brain magnetic resonance imaging (MRI). There was no discrete evidence of a pituitary adenoma (Figure 2). There was no clinical or biochemical evidence of pituitary hormonal deficiency with normal random cortisol, prolactin, free thyroxine, thyroid-stimulating hormone (TSH), insulin growth factor-1 (IGF-1), growth hormone (GH), luteinizing hormone (LH), follicle-stimulating hormone (FSH), and estradiol. A repeat MRI
Pituitary Apoplexy Presenting as Acute Headache

Pituitary apoplexy (PA) is a rare clinical syndrome caused by acute hemorrhage or infarction, usually within a pituitary adenoma. It manifests as a sudden onset of severe headache, often accompanied by ocular palsy, visual disturbance, or endocrine abnormalities. Patients can have deficiencies in one or more of the anterior pituitary hormones. Risk factors include pituitary adenoma, head trauma, pregnancy, anticoagulants, surgery, and hypertension. Subclinical PA can exist in asymptomatic patients. Pituitary apoplexy is suspected based on clinical presentation or biochemical endocrine abnormalities. Diagnosis is confirmed by MRI. Patients may require emergent hydrocortisone to combat hypocortisolemia-induced hemodynamic instability. Neurosurgical intervention is considered with ophthalmic involvement or acute deteriorations. Most patients have a good visual recovery with conservative treatment.

Our patient was a mild case of PA, as headache was her only presenting symptom, which had a wide differential of its own, and normally wouldn't suggest PA. Imaging was done because of unexplained headache. Once PA is identified, a full work-up is warranted to identify and treat potentially lethal complications regardless of symptoms.

Statement of Informed Consent

This case report was written and submitted with the consent of the patient.

References