

et al: A PET study exploring the laterality of brainstem activation in migraine using glyceryl trinitrate. *Brain* 128:932, 2005.)

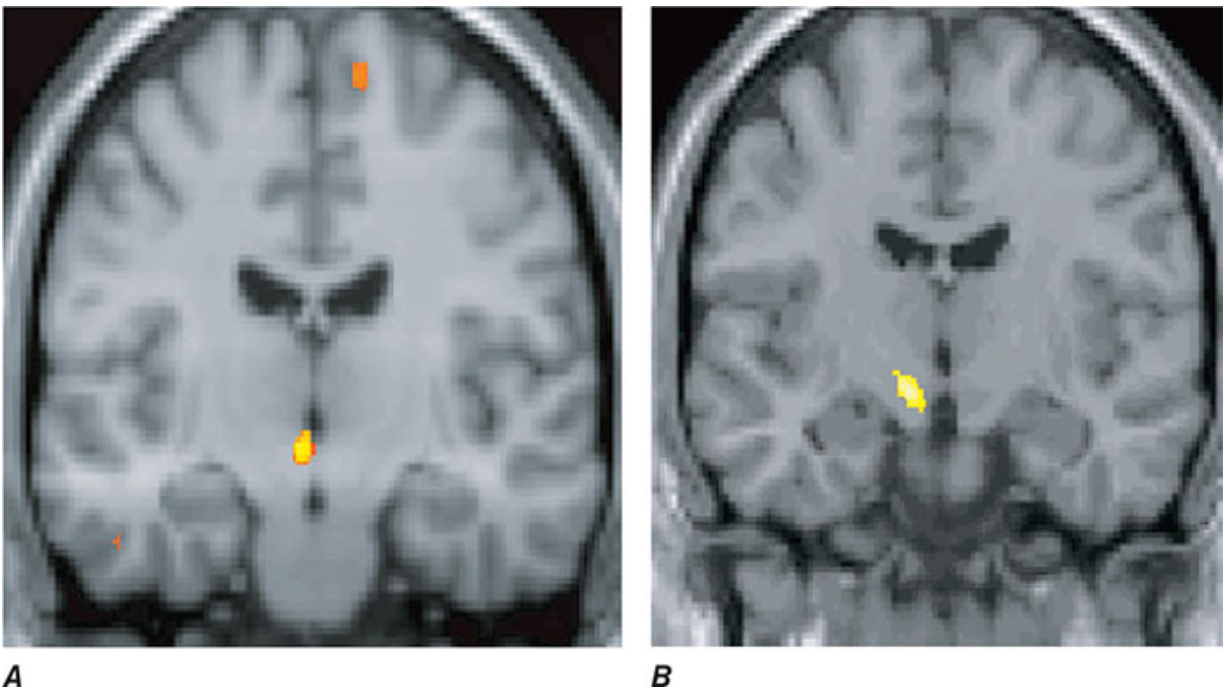


FIGURE 430-3 **A.** Posterior hypothalamic gray matter region activation demonstrated by positron emission tomography in a patient with acute cluster headache. **B.** High-resolution T1-weighted magnetic resonance image obtained using voxel-based morphometry demonstrates increased gray matter activity, lateralized to the side of pain in a patient with cluster headache. (Panel A from A May et al: *Hypothalamic activation in cluster headache attacks*. *Lancet* 352:275, 1998. Panel B from A May et al: *Correlation between structural and functional changes in brain in an idiopathic headache syndrome*. *Nat Med* 5:836, 1999.)

Diagnosis and Clinical Features Classic diagnostic criteria for migraine headache are listed in [Table 430-3](#) and should be considered together with the extended features in [Table 430-2](#). A high index of suspicion is required to diagnose migraine: the migraine aura, consisting of visual disturbances with flashing lights or zigzag lines moving across the visual field or of other neurologic symptoms, is reported in only 20–25% of patients. It should be distinguished from the pan-field television static-like disturbance now recognized as the *visual snow syndrome*. The first phase of a migraine attack for most patients is the premonitory (prodromal) phase consisting of some or all of the following: yawning, tiredness,