Infrared pupillometry during uncal herniation.

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Abstract
Infrared pupillary scans have been used extensively as an objective measure of pupillary reflexes during pharmacological studies of human subjects, but no previous scans have documented the pupillary changes during transtentorial uncal herniation. We present infrared pupillary scans from three patients with brain stem compression secondary to expanding intracranial mass lesions. The scans were made with a portable device permitting infrared pupillometry at the patient's bedside. Portable infrared pupillometry records objective measurements of pupillary light reflexes, which provides information useful for diagnosing transtentorial herniation and affords objective measurements of an important endpoint in the management of patients with head trauma or supratentorial mass lesions.

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