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## Abnormal Ocular Motilities in Midbrain Lesion

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The rostral midbrain is the critical site of prenuclear (supranuclear) vertical and torsional eye motion control. At this level, the rostral interstitial nucleus of the medial longitudinal fasciculus (riMLF), the interstitial nucleus of Cajal (INC), and the posterior commissure (PC) are the anatomical structures mediating vertical-gaze inputs to the oculomotor nuclei. Whereas the riMLF is the immediate pre-motor structure for vertical and torsional saccade generation, the INC is considered a major part of the neural integrator for vertical and torsional eye movements. In company with impairment of vertical or torsional eye movement or disturbance of vergence eye movement from the lesion of dorsal midbrain including riMLF or INC, gaze palsy from ocular motor nucleus or fasciculus or medial longitudinal fasciculus (MLF) lesion can come in making various manifestations in midbrain lesions.

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**Key Words:** Midbrain; Eye movement disorders

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