뇌간병변에서 관찰되는 안구운동장애: 교뇌

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Abnormal Ocular Motilities in Brainstem Disorders: Pontine Lesions

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The pons contains nuclei and tracts that are important in the control of horizontal eye movements, including the abducens nucleus, medial longitudinal fasciculus (MLF), paramedian pontine reticular formation (PPRF) and omnipause neuron. Lesions of the abducens nucleus cause an ipsilateral palsy of horizontal conjugate gaze because the abducens nucleus contains two groups of neurons: abducens motoneurons that innervate the ipsilateral lateral rectus muscle, and abducens internuclear neurons that innervate the contralateral medial rectus motor neurons via the MLF.
Among the fibers that make up the MLF, many carry a conjugate horizontal eye movement command from abducens internuclear neurons in the pons to the medial rectus subvision of the contralateral oculomotor nuclear complex in the midbrain. Lesions of the MLF produce internuclear ophthalmoplegia (INO). PPRF is thought as a generator of the ipsilateral horizontal saccade. Omnipause neuron in the nucleus raphe interpositus inhibits all horizontal and vertical burst neuron except during saccades. Dorsolateral pontine nucleus (DLPN) or nucleus reticularis tegmenti pontis (NRTP) lesions cause impairment of smooth pursuit and vergence eye movement.
Pontine hemorrhage usually causes a pinpoint but reactive pupils, ocular bobbing, and horizontal gaze palsy. Inferior olivary pseudohypertrophy and oculopalatal tremor may develop as delayed complications.

Key Words: Ocular motility disorders; Horizontal diplopia; Internuclear ophthalmoplegia

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