

What muscles do motor neurons in the spinal accessory nucleus innervate?

Sternocleidomastoid and upper part of trapezius

What is the rostrocaudal extent of the spinal accessory nucleus?

Spinal-medulla junction to about C4

What is the rostro-caudal organization of the nucleus ambiguus?

The rostral portion contains motor neurons that innervate pharyngeal muscles; the caudal portion contains laryngeal motor neurons. CN 9 contains motor axons from the rostral pole of the nucleus ambiguus (pharyngeal only), CN 10 from the middle region (laryngeal and pharyngeal), CN11 (cranial division) contains motor axons from the caudal pole (laryngeal only)

Through which cranial nerve do most of the efferents from nucleus ambiguus course?

Vagus

What is the function of vestibular fibers in MLF?

Eye movement control; e.g., vestibulo-ocular reflex

What are the consequences of a lesion affecting the area of the VIth nucleus?

Paralysis of ipsilateral lateral rectus muscle (motor neurons in abducens nucleus) and loss of ability to adduct the contralateral medial rectus muscle in directing horizontal gaze to the lesioned side (due to loss of internuclear neurons).

The trochlear nucleus innervates the ipsilateral eye muscles. True, false, or maybe?

False

What are the consequences of a lesion affecting the oculomotor nerve?

Eye looks down and out. Down = unopposed action of the superior oblique muscle; Out = unopposed action of the lateral rectus muscle

What is the function of the Edinger-Westphal nucleus?

Pupil constriction; increase curvature of lens on near gaze

What nuclei are interconnected by the MLF?

VI and III (learned in this lab); vestibular and III, IV, VI (for vestibulo-ocular reflex)

What structure at the level of the rostral MLF is important in controlling vertical eye movements?

Rostral interstitial nucleus of the MLF

The corticobulbar tract descends through the genu of the internal capsule. What artery (or arteries) supply the genu?

Anterior cerebral artery; middle cerebral artery (upper part of internal capsule); anterior choroidal artery (lower part)