

**LEVEL: MEDULLA—LATERAL
RECESS OF FOURTH
VENTRICLE**

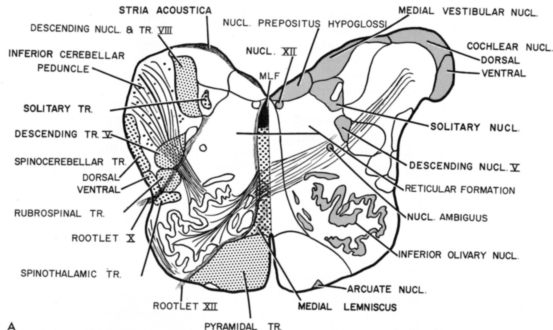
The pyramids and olive are the most prominent structures at this level. The gracile and cuneate nuclei are no longer present, while the inferior cerebellar peduncle is prominent. At this level, the olivocerebellar fiber system is seen entering the inferior cerebellar peduncle. The prominent landmarks on the floor of the fourth ventricle are, medially, the medial eminence, and, laterally, the vestibular area (medial vestibular nucleus) and acoustic tubercle (dorsal cochlear nucleus).

Cranial Nerves

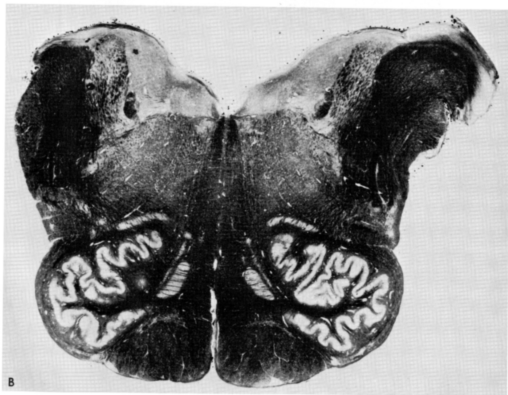
Motor. The dorsal motor nucleus of nerve X is no longer present and this section marks the superior extent of nerve XII. The ambiguous nucleus at this level still consists of nuclei of nerve X innervating the pharyngeal and laryngeal muscles.

Sensory. The nucleus and tractus solitarius are most conspicuous at this level. Nuclei associated with the vestibular and cochlear division of nerve VIII are present at this level. The medial and spinal divisions of the vestibular nuclei are seen near the floor of the fourth ventricle. Mixed in with the spinal vestibular nuclei are the descending rootlets of nerve VIII.

Tracts. The inferior cerebellar peduncle, the descending tract and nucleus of nerve VIII, and the solitary tract are conspicuous. On the floor of the fourth ventricle, the stria medullaris is seen; this tract connects the cerebellum with the brain stem. In the medial eminence of the fourth ventricle, many of the axons are descending fibers from the hypothalamus and limbic-midbrain nuclei, connecting to the cranial nerve nuclei and reticular formation.



A



B