13 - F. Cerebrospinal fluid

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© SPMM Course VII Facial Both sensory and motor. Transmits taste sensation and controls facial muscles VIII Vestibular Transmits auditory sensation

Cochlear Transmits balance sensation IX Glossopharyngeal Motor control of pharynx; parasympathetic control of the parotid gland; taste from the back of the tongue. X Vagus Motor control of larynx and pharynx; parasympathetic control of the viscera; visceral sensations. XI Accessory Motor control of neck muscles XII Hypoglossal Motor control of tongue muscles

E. Spinal Cord Unlike cerebrum where grey matter is on the outer surface, in spinal cord grey matter occupies the deeper aspect forming an H shaped column surrounding the CSF. The white matter bundles form anterior, lateral and dorsal columns around the grey matter zone. The dorsal column carries proprioceptive sensory fibres; the anterior and lateral columns are made of ascending spinothalamic tracts carrying touch, pressure, pain and temperature sensations. F. Cerebrospinal fluid CSF is secreted by the choroid plexus in the lateral, third and fourth ventricles and at a rate of 300 ml/day, which is almost protein free. Route: From lateral ventricle to 3rd ventricle via interventricular foramina of Monroe; From 3rd to 4th ventricle via cerebral aqueduct of Sylvius; From 4th ventricle to subarachnoid space via foramen of Magendie (single) and foramina of Luschka (two lateral). The body of the lateral ventricle lies immediately below the corpus callosum, and the two lateral ventricles are separated by septum pellucidum. The third ventricle lies between thalamus and hypothalamus. The fourth ventricle lies above the pons and just below the cerebellum. Obstruction to CSF circulation commonly occurs within third or fourth ventricle (foramen of Monroe), leading to non-communicating hydrocephalus. Impairment of CSF reabsorption in the subarachnoid space due to partial occlusion of the arachnoid villi leads to communicating hydrocephalus.

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