

**LEVEL: ANTERIOR TUBERCLE  
OF THALAMUS**

This section contains the telencephalon and diencephalon.

**Telencephalon.** The globus pallidus and putamen are separated from the thalamus by the posterior limb of the internal capsule. The anterior commissure is seen on the inferior surface of the globus pallidus and putamen. A cellular bridge connects the caudate nucleus and putamen. The amygdaloid nucleus is seen on the medial surface of the temporal lobe.

**Diencephalon.** The inferior floor of the third ventricle is formed by the optic chiasm. The fornix is seen in the substance of the hypothalamus below the hypothalamic sulcus. The thalamus is divided into a medial

and lateral nuclear complex by the internal medullary lamina of the thalamus which at this level contains many fibers of the mammillothalamic tract. The medial region consists of the anterior nuclei which forms a prominent elevation, the anterior tubercle, in the floor of the lateral ventricle. The anterior nuclei as they interconnect with the cingulate cortex are an important part of the visceral brain. The lateral region consists of the ventral anterior nuclei which receives fibers from the superior cerebellar peduncle and projects to the premotor cortices (areas 6 and 8). The ansa lenticularis sweeps around the anterior limb of the internal capsule interconnecting the globus pallidus and the ventral anterior and ventral lateral nuclei of the thalamus.

