TUMORS OF THE OCCIPITAL LOBE*

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Few cases of tumors of the occipital lobe were recorded before the early part of the present century, and no large series of cases of tumors confined exclusively to this lobe was reported before that of Horrax and Putnam in 1932.24

ANATOMY

Though often titled, divided and subdivided, the occipital lobe is still without definite boundaries. In man this lobe is roughly pyramidal in shape having three dural surfaces: a lateral convex surface opposes the dura of the skull, a medial flat surface opposes the falx and an inferior sloping surface opposes the tentorium. Posteriorly, the three surfaces meet in a curved “point” corresponding to the cavity formed by the junction of the falx, tentorium and dura of the skull. It is generally agreed that the medial surface is bounded anteriorly by the parieto-occipital fissure. Books on anatomy differ as to the anterior limits of the other two surfaces. The lateral surface is bounded by an imaginary line drawn from the parieto-occipital fissure to the preoccipital notch, an indefinite landmark indicated by Ranson31 as a fifth of the distance from the occipital to the temporal pole and by Gray21 as a third of this distance.

The inferior surface is variously bounded. Gray used a perpendicular line from the preoccipital notch to the parieto-occipital fissure. Ranson depicted a perpendicular line from the tip of the calcarine fissure to the collateral fissure and from there on back, presumably to the level of the preoccipital notch.

Inasmuch as the calcarine fissure extends beyond its junction with the parieto-occipital fissure to a point just beneath the splenium and as the visual cortex has been definitely identified to this point, for the purpose of our study, Gray’s arbitrary boundary line is slanted forward to extend from the preoccipital notch to the point where the calcarine fissure terminates beneath the splenium (Fig. 1).

In order to determine what proportion of the entire brain is constituted by the occipital lobe, a normal brain of an adult male body obtained at necropsy was fixed in formalin and sectioned. The cuts were made perpen-

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dicular to the cortical surface along the three boundaries as designated: Laterally, a line connecting the parieto-occipital fissure with the preoccipital notch which was taken as a point a third of the distance from the occipital to the temporal pole (Figs. 2 and 3); inferiorly, a line connecting the preoccipital notch with the anterior end of the calcarine fissure beneath the splenium (Fig. 1); and medially, a line connecting this point with the parieto-occipital fissure at its posterior boundary (Figs. 1 and 4).