

The nuclei ventralis anterolateralis, anteromedialis, intermedius, posterolateralis, posteromedialis, and posteroinferior make up the ventral group. This group increases in size and complexity in phylogeny just as the lateral group does. At the present time these nuclei can be compared to only the ventral nuclei of other primates.

The pulvinar makes up most of the posterior region. It is divided into medial, lateral, and inferior nuclei, the first 2 of which can be subdivided into smaller portions. The other 2 nuclei of the posterior region are the nucleus limitans and nucleus suprageniculatus, which are homologous to the similarly named nuclei in Carnivora and in other primates. The pulvinar seems to represent the posterior nucleus, the posterior portion of the lateral nucleus, and the pretectal nucleus of lower mammals.

Homologies of the lateral, ventral, and posterior groups cannot be definitely made until the fiber connections of these nuclei are determined.

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Nuclear Configuration of Subthalamus and Hypothalamus of Macacus Rhesus.

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This work is a phase of the general program of study on the diencephalon. The same technic and method of study were used here as were described in the preceding paper.

The preoptic area is so closely associated with the hypothalamus that its nuclei were also studied. The following nuclei were identified: medial, and lateral preoptic nuclei, nucleus paraventricularis preopticus, and nucleus interstitialis pedunculi thalami. These all appear to be homologous to the nuclei of the same name described by Rioch¹ for Carnivora.

The nuclei of the hypothalamus can be arbitrarily divided into 2 main groups, the nuclei of the infundibulum, and those of the mammillary system. The infundibular group will be considered first. Lying along the floor of the infundibulum and above the chiasma are the nuclei ovoideus, tangentialis, and supraopticus difusus. The nuclei lying close to or around the hypothalamic ventricle,

¹ Rioch, D. McK., *J. Comp. Neurol.*, 1929, **40**, 1.

are the nucleus filiformis, and the nuclei hypothalamicus paraventricularis ventralis, dorsalis, and posterior. The nuclei hypothalamicus anterior and parvocellularis lie in the anterior region of the infundibulum and just behind these nuclei are the nuclei hypothalamicus dorsalis, dorsomedialis, ventromedialis, and nucleus perifornicalis. In the posterior portion of the infundibulum, anterior to the mammillary region are the posterior hypothalamic nucleus and the nucleus hypothalamicus ventro-lateralis. Lateral to all of these nuclei and extending nearly the whole length of the infundibulum is the lateral hypothalamic nucleus.

The principal nucleus of the mammillary region is the medial mammillary nucleus. Surrounding this nucleus are the premammillary, inframammillary, supramammillary, and lateral mammillary nuclei. Just lateral to this group is a well defined nucleus, the nucleus intercalatus.

In the subthalamus were found the entopeduncular nucleus, zona incerta, nucleus subthalamicus, Fields H₁ and H₂ of Forel, and the substantia nigra.

Both the subthalamic and the hypothalamic regions of *Macacus rhesus* resemble very closely these areas of Carnivora, rat, and other lower mammals.

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Ovarian Hormone and Traumatic Stimulation of Monkey's Cervix to a Condition Resembling Early Cancer.

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The ovarian follicular hormone has been shown by Allen^{1, 2} to be a powerful stimulator of epithelial growth in the female genital tract and breast. Large amounts of this hormone have been reported in the blood of cancer patients, both male and female.³ Also

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¹ Allen, Edgar, Contributions to Embryology, No. 98, 1927. Carnegie Inst. Wash. Pub. No. 330, 1.

² Allen, Edgar, Sex and Internal Secretions, 1932, The Williams and Wilkins Co., Baltimore.

³ Dingemans, E., Freud, J., de Jongh, S. E., and Laqueur, Ernest, *Arch. f. Gynäk.*, 1930, **141**, 225.