Ulceration in the Digestive Tract of the Dog following Hypophysectomy. (*Arch. of Path., vol. xxi, p.* 185, *Feb.*, 1936.) *Keller, A. D., and D'Amour, M. C.*

Hæmorrhagic states and crater-formation were found with low and irregular incidence after attempted total hypophysectomy in the dog. Vagotomy did not protect from the hæmorrhagic states, nor sympathectomy from crater-formation. The ulceration was probably precipitated, not because of the lack of hypophyseal secretions, but because of a neighbouring neural derangement, possibly intraventricular stimulation, as a result of opening the third ventricle during the operative procedure. The hypoglycæmic crises encountered appear to be due to deprivation of the anterior lobe of the hypophysis. G. W. T. H. FLEMING.

The Pituitary-hypothalamic Mechanism: Experimental Occlusion of the Pituitary Stalk. (*Brain, vol. lix, p.* 61, *Mar.*, 1936.) *Mahoney, W., and Sheehan, D.*

The writers applied a silver clip to the pituitary stalk in the dog and the monkey, so cutting off secretion and nerve impulses.

In the dog there followed diabetes insipidus, which was abolished by thyroidectomy and re-established by oral administration of thyroid gland. In the monkey no polyuria or polydipsia occurred, and the basal metabolic rate, the blood-sugar level and the nitrogen and base constituents of the urine were unaltered. Metabolic changes were manifested in puppies by retardation of growth, sexual infantilism, adiposity, refinement of hair and sluggish general behaviour. The canine pituitary showed marked degenerative changes due to interference in the major blood-supply as revealed by carmine gelatine preparations. No comparable changes either in vascularity or in cyto-architecture were found in the primate pituitary. In the dog the pituitary stalk is short and thick, and contains a direct prolongation of the third ventricle, so that the stalk and the tuber cinereum are identical. In the monkey, on the other hand, the stalk is a comparatively long thread-like band connecting the clearly differentiated tuber with the pituitary body, and the relations are such that it is possible to place a silver clip round the stalk without injuring the adjacent structures; the third ventricle ends in the tuber cinereum proper and does not extend into the stalk. The metabolic responses in the dog have been attributed to a pituitary or to a hypothalamic lesion, but the inseparable anatomical arrangement of the pituitary-hypothalamic complex does not warrant such a clear distinction. In the monkey the evidence supports the hypothalamic origin of diabetes insipidus. G. W. T. H. FLEMING.

The Effects of Lesions of the Dorsal Column Nuclei in the Macacus rhesus. (*Brain, vol. lix, p.* 77, *Mar.*, 1936.) *Ferraro, A., and Barrera, S. E.*

The writers found that lesions of the gracile and cuneate nuclei in *Macacus rhesus* gave rise to a loss of sense of position in all extremities, hypotonia, and a transient loss or diminution of the hopping and placing reflexes. There was no appreciable change in superficial sensibility, and the deep reflexes were not only preserved but appeared to be increased. If the lesion involved only the gracile nuclei, the symptoms were limited to both hind legs if the lesion was bilateral, and to the ipsilateral leg if the lesion was unilateral. If the lesion was limited to the cuneate nucleus, the symptoms were limited to the upper extremities if the lesion was bilateral, or to the ipsilateral extremity if the lesion was unilateral.

The symptoms in the upper extremities from lesions of the cuneate nuclei were more pronounced than those in the lower extremities following lesions of the gracile nuclei. When the lesions of the posterior column nuclei involve also the external cuneate nucleus, which represents a relay station from the posterior column of the cervical segments to the cerebellum, the symptoms are more pronounced because of the involvement of the cerebellar component. The symptoms of lesions of the gracile and cuneate nuclei are similar to those which follow removal of the post-central convolutions, but the latter are less pronounced, since the medial lemniscus sends impulses not only to the post-central, but also to the pre-central and parietal cortex. G. W. T. H. FLEMING.