De beteekenis der roode kernen en van het overige mesencephalon voor spiétonus, lichaamshouding en labyrinthaire reflexen.


Dr. Rademaker’s thesis consists essentially of the record of a great number of ingenious experiments on guineapigs, rabbits, cats, dogs and apes, undertaken in order to define and determine the anatomical centres and tracts responsible for the activity of the reflex mechanisms described and studied by his colleague Professor Magnus. These are dealt with consecutively, protocols of experiments given in considerable detail, with numerous drawings of microscopical preparations, and convenient tables summarizing results inserted in their appropriate place.

(1) Decerebrate rigidity. No disturbance of muscle tone follows decerebration by a transverse section passing in front of the anterior colliculi, just in front of the oculomotor nuclei, through the tip of the pars parvo-cellularis of the red nuclei; whereas section through the middle of the anterior colliculi, through or caudal to the pars magnocellularis of these nuclei, is followed by extensor rigidity. In the ‘thalamus’ animal section of Forel’s decussation leads to this rigidity.

(2) The red nuclei are the anatomical centres (cat and rabbit) for the reflexes known as the labyrinth-‘righting’ and the body-‘righting’ reflexes. In respect of the latter, only the body-‘righting’ reflexes acting on the body are located in rubral centres; those acting on the head (rabbit) are located at a level caudal to that which passes through the anterior parts of the red nuclei (pars parvo-cellularis). The posterior limit for these reflexes is a line drawn through the posterior half of the anterior corpora quadrigemina, in front of the decussation of the superior cerebellar peduncles.

(3) Tonic-labyrinth reflexes and tonic-neck reflexes. These require for their action integrity of the brainstem behind the eighth nerve nuclei and of the anterior segments of the cervical cord respectively.

(4) The centres for, the neck-‘righting’ reflexes are caudal to the mesencephalon.

(5) The stato-kinetic reflexes of progression (‘Liftreaktion,’ ‘Sprungs-bereitschaft’) are localized caudal to a plane which passes dorsally behind the posterior colliculi and ventrally through the caudal half of the pons.

The essential differences between the ‘thalamus’ animal and the decerebrate animal are as follows: the former exhibits a normal distribution of muscle tone; its labyrinth-‘righting,’ neck-‘righting,’ and body-‘righting’ reflexes are preserved. The latter shows pronounced extensor rigidity, while the only reflexes of the above groups left are the neck-‘righting’ reflexes.

For the clinician perhaps the most interesting part of this admirable thesis is the chapter on the functions of the red nuclei in man. Dr. Rade-maker has collected and collated a considerable number of clinico-anatomical cases, reported by Pierre Marie, Guillain, Raymond, Cestan, Claude and Loyez, Holmes, Wilson, Walshé, Greiwé, Kolisch, and various other observers, in an endeavour to correlate his experimental results with those of the neurologist. It is perhaps only to be expected that this careful search through
REVIEWS AND NOTICES OF BOOKS

a scattered literature has not rewarded the author with any clear-cut clinical picture of disturbance of rubral function, still less with any definitive relationship between experimental and clinical findings. He mentions, in particular, the association of tremor, more or less of the paralysis agitans type, with lesions in the midbrain and corpus striatum (Holmes, Wilson, and others); to support this weight of clinicopathological data he can find only scanty experimental material (e.g., Economu and Karplus), and cautiously concludes that the cases of experimentally produced tremor are much too few, and the lesions too widespread, to enable him to come to any decision as to the mechanism involved. He modestly states he is not in a position, further, to express any opinion on the vexed question of the relation, if any, of tremor to rigidity. Authorities are quoted and their views outlined. Dr. Rademaker contents himself with observing that, in all four of the cases of experimental tremor he has found recorded, hypertonic phenomena were also present. "In these also, therefore, a manifold correspondence between tremor and hyper-tonus seems to exist."

It is doubtless just a little regrettable that this fine monograph is written in Dutch, a fact which in a way limits its usableness, and the hope may therefore be expressed that it will soon appear in a language with which non-Batavian neurologists are more conversant, for it represents a solid and most valuable addition to neurological knowledge.

S. A. K. W.


The latest edition of this wellknown book bears evidence of thorough revision, and includes material garnered from many neurological papers of the last four years, the sources as a rule being indicated by footnotes.

A new chapter has been added on delirium, which is both entertaining and instructive. The section dealing with psychoneuroses has been largely rewritten and expanded, and contains several pages devoted to problems of etiology and psychopathology. Here we find the author’s views lucid and practical, so far as he prefers the language of commonsense to current jargon. We take exception, however, to his adoption of the classification of the emotions into centrifetal and centrifugal, a distinction which is not generally accepted by psychologists, and introduces a new terminology more likely to confuse than to enlighten the student. The author is at his best when expounding his own views—dogmatically, as befits a work of this size. This chapter as a whole contains much good sense, and abounds in clinical illustrations. The remainder of the book is little changed, save where it is brought up to date by descriptions, for instance, of the ventriculogram and lipiodol injection. The photograph illustrating the latter method might have been better reproduced.

The popularity of the book may be gauged from the recent appearance of a translation of it into Arabic, in addition to the French, German and Spanish editions.

C. P. S.
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J Neurol Psychopathol 1924 s1-5:
283-284
doi:
10.1136/jnp.s1-5.19.283

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