
This is a reprint of a paper published in Acta Neurologica, 1974. It is primarily a review of experimental studies on the control of body temperature and the specific role of some regions of the central nervous system on thermoregulation. This paper is clearly written in Italian, and includes a considerable number of references from 1949 to 1972 with only few more recent publications. Appropriate credit has been given to the authors who identified thermosensitive neurones in the region which is often called 'the hypothalamic thermostat'. A number of pharmacological investigations is discussed, including some of the authors' personal research in domestic fowl, on aminergic control of temperature, as well as the role of prostaglandin E in inducing fever. This article is of 47 pages, of which 9½ pages are of references. A brief summary in English is also included.

G. PAMPIGLIONE


This large East-German text has 24 authors, including two Austrians and two Swiss, and although the two editors are authors, coeditors, of half the 36 sections the reader is conscious of the multiplicity of hands, particularly in the clinical part. Neurophysiology is excellent, and the radiological chapter is beautifully illustrated. Unfortunately, the radiographs elsewhere in the book are poorly reproduced.

The general impression is of over-tabulation, including two pages of the various cerebrospinal fluid findings in named patients, complete with diagnoses. The chapter on dementia is mostly descriptive neuropathology, and one misses a discussion of the clinical investigations of these difficult cases. There is nothing on the surgical relief of disorders of CSF circulation in this context, and while Gardner features in the references there is no mention of his treatment of syringomyelia in the text. An interesting observation states that multiple sclerosis has doubled in incidence since the start of the century, but the supposed prevalence of 1% should surely be divided by ten?

The text ranges from neuroanatomy to neurorehabilitation, and is designed for the training of neuropsychiatrists, as well as neurologists: indeed, the senior editor makes a spirited plea against further separation, and warns against the dangers of the 'neurological vacuum' in the practice of psychiatry.

E. H. JELLINEK


The explosion of interest in paediatric neurology has brought with it a demand for updated texts, as well as systematic training programmes. This may be partly the reason for the decision to separate off a neurological section from a general paediatric text, and present it as an independent book. This account provides a useful unfussy synopsis, with especially good sections on congenital defects and infections, but it has not shed its abbreviated parent format. The section on degenerative diseases is disappointingly outdated, and inevitably there are differences in emphasis which reflect the transatlantic origin (apart from the price). The tautological confusion about the nature of febrile convulsions is prescribed in classical form.

J. WILSON

NOTICE

NEUROSURGERY THROUGH THE MICROSCOPE 10–14 May 1976: Tenth International Symposium. Details from the organizers: Registrar, Department of Neurosurgery and The Page and William Black Postgraduate School of Medicine, Mount Sinai School of Medicine, Fifth Avenue and 100th Street, New York, N.Y. 10029, U.S.A.

Letter

MYASTHENIA GRAVIS; THYMIC HISTOLOGY AND RESPONSE TO THYMECTOMY

Sir,—The paper of Dr. Sambrook and his associates (1976) detailing the results of Manchester Royal Infirmary for thymectomy in myasthenia gravis is interesting. It is apparent that they believe that there is a correlation between the presence of numerous thymic germinal centres and a favourable response to thymectomy. The widely varying results obtained by various groups to date are summarised in the Table.

Several factors may account for the divergent findings:

Acknowledgment

This work was supported by the Royal National Throat, Nose and Ear Hospital and the National Medical Research Council.
1. Numbers of cases studied. This needs little elaboration. Obviously associations detected in small groups are of little value since they may well occur by chance. Additionally, there is an increased possibility of small groups containing unrepresentative proportions of different clinical groups as well as of age and sex of patients.

2. Method of assessing histological changes. Only formal morphometric methods are adequate. Obviously, subjective assessment is too prone to observer variation. Although less obvious, there are serious weaknesses in semiquantitative studies. Alpert et al. (1971) and Sambrook et al. (1976) have both defined the frequency of germinal centres in terms of germinal centres/low power field. The area of tissue section observed with a microscope depends on the magnification factors of the objective lens and of the eyepieces; generally speaking, the lower these are, the larger the area covered. Neither group has specified these details. In addition, the type of eyepiece used appreciably alters field size regardless of magnification. For these reasons, it is not possible to compare the findings of semiquantitative studies. Even if the optical data had been supplied, there would be a residual difficulty—neither group indicates how it compensated for the irregular shape of the thymus, which inevitably means that a portion of most fields is not thymic tissue nor does the technique allow for different proportions of cortex and medulla in different thymus glands. The only technique which can do so is one which states the density of germinal centres per cm² of medulla.

3. Statistical analysis of Dr. Sambrook’s final follow-up data does not reveal a statistical correlation between the presence of thymic germinal centres and a favourable response to thymectomy. (χ² = 3.9, P > 0.05).

4. The control thymic tissue used by Alpert et al. and Sambrook et al. is unsatisfactory. Thymic tissue undergoes stress atrophy with great speed and for this reason it has been widely accepted that normal thymus glands can be obtained only from subjects dying rapidly after trauma.

5. Although the authors have followed the histological methods of Alpert et al., they have departed from the clinical classification used by the latter authors. Three of their group A subjects would have been group B of Alpert et al. (1971) or group B or C of Vettes and Simpson (1974). This does not alter their general findings but tends to make comparisons of different groups more difficult.

In order to resolve what, if any, relationship there is between thymic germinal centre formation and response to thymectomy, it will be necessary for workers in the field to present their findings in a manner which allows useful comparisons to be made between different studies. In my opinion, this means that formal morphometric methods will have to be used to assess the thymic histology.

J. M. VETTERS

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REFERENCES


