increasing distance from the midline. The electrode tip in this case is at coordinates (F 7.7, H 0.0, L 6.8 mm). The bare component of the unipolar electrode extends 3 mm rostral to the tip at a 45 degree angle. In the sagittal plane, the tip is oriented medially 12 mm. In this case therefore the possible structures which may be involved are the centromedian nucleus and parafascicular nucleus of the thalamus, the prerubral field of the mid brain, the medial part of the VPM nucleus of the thalamus, the habenulo-interpeduncular tract, the field H of Forel and the rostral components of the reticular thalamic formation.

Electrophysiological discharges and localisation: The EGG discharges observed in this case and used for final electrode placement were characteristic of discharges observed in other patients and were similarly treated for chronic pain syndromes. The discharges have included an area in the rostral mesencephalon in contiguity with the postero medial thalamic area which the centromedian nucleus was encompassed. Similarly, the discharges were generated by cellular elements and not by fibres tracts, and since attenuation of the discharges is accompanied by improvement without sensory and motor impairments, it was theorised that the observed effects were due to implication of neither the fibre tracts nor thalamic sensory-motor nuclei.

The patient will require no historical control: It is unfortunate that precise anatomical localisation of an electrode cannot be given in the present case, nor in any other clinical reports which by necessity are dependent upon pathological evidence of the lesion. The most that one can expect in a brief case report, is to diagrammatically illustrate the anatomical site of localisation and to identify the site by the structure or anatomical system which perhaps best accounts for the clinical picture. For our report, it is expected that the readers will refer to the diagrammatic insert and realise, as did Mr Goadsby, that in all probability the centromedian nucleus is not involved to the extent of other structures.

The same reporting methodology was apparently used, in the rat studies quoted by Mr Goadsby, on cerebrovascular changes elicited by electrical stimulation of the centromedian-parafascicular complex in the rat. The critical reader may think that the (C-M) complex is exclusively responsible for the findings. Although the electrodes are in the (C-M) Complex, the tractus retroflexus of Meynert may also be implicated for the following reason: histological diagrams of the electrode localisations reveal several points next to the tractus retroflexus of Meynert, which runs through the (C-P) complex. That tract, in part, conducts impulses from the anterior diencephalon and septal area, structures which are associated with BP elevations in response to high frequency discharges. Furthermore, after establishing thresholds of stimulation sites for BP elevations of < 10 mm Hg and then stimulating at the same sites with parameters 3 x threshold, makes one wonder whether the autonomic and cardiovascular implications are at the same relatively high levels of stimulation. In addition, 1-5 h after anaesthesia may be insufficient clearance time to obviate chloralose hyperexcitability effects.

The increased cerebral blood flow from stimulation of the centromedian-parafascicular complex observed, by Mrazovitch and Slezay (1987) and Mrazovitch et al (1986) in the rat, is of interest in view of our demonstrating increased thalamic blood flow without obvious cortical involvement. One is tempted to speculate that the underlying mechanism is the same in both instances despite the deficiencies in specific anatomical localisation. The evaluation of local blood volume or local glucose utilisation depends on the radionabaged agent used in SPECT. Iodochromatine (IMP) used in this case is primarily electro active, and probably also indirectly reflected local cell function or metabolic state.

**Blood pressure**: Acute changes in BP, as reported in the rat, were not noted in this patient. There was no stimulation in the general area of the centromedian nucleus, even at threshold stimulation for sensory-motor responses. Spontaneously and artificially induced after-discharges also were not accompanied by BP changes.


**BOOK REVIEWS**


The fascination with the functional differences of the two cerebral hemispheres lives on. We have come a long way from the quasi-phenomenological theories that attempted to localise discrete functions to specific areas in the right or left hemisphere. More appealing views of the left hemisphere as an analysing and the right as a Gestalt processor have also been superseded by models based on the study of split brain patients and the use of dichotic listening and tachistoscopic techniques to direct information to either hemisphere. One such model put forward by Kosslyn considers that the left hemisphere analyses information along categorical lines, like a library of words or objects, whilst the right hemisphere is more like a guide-book that allows us to get information from the library.

Cutting has found inspiration in Kosslyn’s views and his perambulations across the two hemispheres are done with his guide-book firmly in hand. The result of his effort is a unique book that provides a detailed and scholarly review of hemisphere function that will be impossible to find anywhere else. The book is divided into three sections. The first deals with the evidence of the differential functions of the two hemispheres and includes an excellent historical review. The second deals with focal neuropsychiatric symptoms in the light of differential hemisphere function and includes a useful chapter on tests of hemisphere function, and the third explores the role of hemisphere differences in the causation of psychiatric disorders.

In my view the main strength of the book lies in its second section which skilfully explores the common ground between many psychiatric and neuro-linguistic problems for which, at times, have been artificially separated. Various disorders of awareness, language and thought and other symptoms such as delusions are dealt with here. New insights into phenomena such as language and I can easily envisage coming back to it in search for an explanation, when puzzled by clinical cases. The last section is perhaps best seen as food for thought and it is less likely to stand the test of time.

Cutting firmly believes that a hemisphere imbalance, with impaired functioning of the right hemisphere, is at the root of schizophrenia. The evidence for this, as Cutting highlights, points out, is overwhelming. He argues that even the recent imaging and neuropsychological studies have failed to provide the desired proof. In fact, finding a coherent explanation to encompass the evidence implicating abnormalities in various cerebral sites in schizophrenia is one of the greatest challenges facing psychiatry; and hemisphere imbalance is unlikely to be a satisfactory explanation. The evidence is even more appealing to those interested in the affective illness and autism. These problems do not detract from the interest of the book, but add to the hope that Cutting will again be tempted to write on the subject when, in a few years’ time, the biologic-patho-physiologic picture will be better understood. All those interested in the complex relations between brain and mind should read this book.


The first major investigations of clinical disorders of the vestibular system were carried out by Robert Barany in 1907. Since this time, and especially in the last 15 years a veritable deluge of tests has been applied to function and reflexes arising in the vestibular apparatus. Neuro-otology has evolved as a new specialty, but sadly the refinements of clinical diagnosis and treatment of the dizzy patient have lagged behind. Indeed only a handful of diagnoses are used by most audiologists and neurologists. The commonest are: acute vestibular neuritis, benign positional vertigo, the clinically ill-defined canal disorder, and the overdiagnosed Menière’s syndrome, and a variety of clinical assumptions in later life yielding labels such as cervical spondylosis and vertebrobasilar insufficiency often in terrainous fashion. There is little doubt that the dizzy patient will at least receive a more accurate diagnosis if suitably investigated in a clinically directed neuro-otology laboratory, even if he or she emerges with specific drug or surgical therapies which are often disappointing.

The second edition of this book from UCLA appears some eleven years after the first. It is conventionally divided into three...
BOOK REVIEWS: The Right Cerebral Hemisphere and Psychiatric Disorders.

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