ing the ictal and post ictal periods. The heightened capillary permeability could explain the focal enhancing lesions when the seizures are frequent. Return to normal permeability in a seizures free period, after treatment, could be the reason for the lack of extravasation of the contrast material into the parenchyma and therefore of the nonvisualisation of the epileptic focus on repeat CT scan. Recent studies performed in epileptic patients by positron emission tomography (PET) showed modification of the local cerebral blood flow and metabolism during the ictal and interictal periods.⁵ With further development PET probably will help in elucidating this phenomenon and the basic mechanisms of epilepsy.

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Sethi replies We thank Dr Ambrosetto for his interest and valuable suggestions. Since the original report¹ we have had another thirteen cases (thus a total of 24 cases) of epilepsy with disappearing CT scan abnormalities seen in last two years. Other workers²⁻⁴ from India have also reported similar cases one series having 60 cases.² There has been a dearth of such reports from abroad. To the best of our knowledge there have been three such reports⁵⁻⁶ reporting six cases in total. The exact aetiology of cases of epilepsy with disappearing CT scan abnormalities is not known. The possibility of "focal encephalitis perhaps peculiar to this region" was strongly suggested by us in our communication.¹

The possibility of sarcoidosis has been raised and dismissed by Ambrosetto himself. It needs no further comments. The prevalence of multiple sclerosis is very low in India and the disease is definitely uncommon, if not rare. Some of the cases reported by us now have a follow up of two years. They have remained asymptomatic. Epilepsy as a sole manifestation of multiple sclerosis must be rare indeed. How does one diagnose multiple sclerosis in such a setting? CT scan abnormality in multiple sclerosis is that of areas of lucency in central white matter of the brain particularly in the periventricular regions and occasionally in the brain stem and not in grey matter as seen in our cases. Thus, multiple sclerosis can be excluded. It is interesting that there are few reports of cases of epilepsy with disappearing CT scan abnormalities from countries where the prevalence of multiple sclerosis is high.

Transient postical focal CT abnormality as a consequence of focal seizures resulting in postical oedema (presumably due to changes in the blood brain barrier) was discussed by us also and seems a very attractive hypothesis. It may easily explain hypodense lesions. It cannot, however, explain some hyperdense lesions which have been seen without contrast enhancement. Further, if this hypothesis were true there would have been a large number of cases reported by now from all countries, as epilepsy occurs worldwide. Thus lack of similar reports is not only remarkable but strongly argues against this hypothesis.

Brain biopsy, theoretically, is the best and only firm method of finding the exact pathogenesis under the present circumstances. It, however, presents with formidable problems. The lesions are too small for precise localisation, and probing is not justified as the lesions are mostly in the motor strip. Last but not least, ethical considerations demand informed consent for biopsy for a lesion which we now know is reversible. Because of these limitations, we have been able to do a cautious biopsy only in one case. The histology of the specimen was suggestive of nonspecific focal meningioencephalitis, thus supporting our original contention.

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Cryptococcal meningitis

Sir: Tjia, Yeow and Tan, in their Occasional Review, on cryptococcal meningitis¹ state that following treatment of the acute meningitis, smear tests may remain positive for cryptococcus for up to two years. They suggest that re-treatment of such cases should be considered only if the organism is growing, indicating that patients may be considered cured despite positive smear. Their own finding that the diagnosis of cryptococcal meningitis may be difficult, requiring repeated lumbar puncture before culture becomes positive, and the well documented presentation of cryptococcal meningitis as a chronic relapsing illness with many years of intervening asymptomatic good health despite persistent CSF changes, suggest that this recommendation should be treated with caution. In the case reported by Benn *et al.*² both smear and culture for cryptococcus were negative on repeated lumbar puncture over a period of 15 years of a relapsing illness before the diagnosis was established. Although treatment with 5 fluorocytosine and amphotericin B carries with it the risk of serious side-effects and retreatment cannot therefore be undertaken lightly, it would seem wise to consider all patients who have

persistent abnormalities in the CSF, whether it be a positive smear, pleocytosis, raised protein or low sugar, as being at risk of relapse even years after the presenting illness. It is not clear from Tjia, Yeow and Tan's paper whether the positive smear for cryptococcus was the only abnormality found.

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- 1 Tjia TL, Yeow YK, Tan CB. Cryptococcal meningitis. *J Neurol Neurosurg Psychiatr* 1985; 48:853-8.
- 2 Benn JJ, Monro PS, Duncan G. Cryptococcal meningitis for 15 years. *J Neurol Neurosurg Psychiatr* 1984;47:321.

Tjia replies:

In our review, we stated that positive smears can remain for years (not only 2 years, as Dr Munro quoted). In our minimum 3 year follow-up period of the 25 patients, we found that positive smears associated with repeated negative cultures do not necessitate re-treatment. These patients have remained well even though abnormalities in the CSF profile were noted. In the two relapsed cases in our series (patients nos 24, 25) both had abnormal CSF profiles but with positive cultures. However as Dr Munro noted that there are serious side effects with amphotericin and 5 fluorocytosine and retreatment cannot be undertaken lightly. We would only consider relapse and retreatment in the face of a positive culture.

DR TJOEI LIAN TJIA

Notice

Tenth International Congress of Neuropathology

This will be held 7-12 September 1986 in Stockholm, Sweden. Further information may be obtained from Stockholm Convention Bureau, PO Box 1617, S-111 86, Stockholm, Sweden.

Book reviews

Neurologic Emergencies. A Symptom Oriented Approach. By Gregory L Henry and Neal Little. (Pp 309; £31.25.) Maidenhead: McGraw-Hill Book Company, 1985.

Described as a "Symptom Oriented Approach" to "Neurologic Emergencies" this book, after brief introductory chapters on neuro-anatomy and examination, covers a number of topics. These include headache, altered conscious levels, focal deficits, weakness, visual disturbances, seizures, dizziness and neck and back pain. There are also chapters on trauma and psychogenic syndromes. The authors correctly stress the important role of neurological emergencies suggesting this book will help physicians involved in the primary care of patients. I was uncertain whether the proposed readers were general practitioners or casualty officers; perhaps it is intended for both.

Useful facts are presented clearly. There are many familiar tables and charts such as dermatome distribution, reflex levels, and the figures from the "Diagnosis of Stupor and Coma" (Plum & Posner) to help in patient assessment. The order is sometimes difficult; the dermatome charts do not appear until chapter 9 and muscle root innervation in chapter 14. Tables 3-2 and 8-3 appear identical. Many differential diagnoses are tabulated and briefly discussed and there are some flow charts to aid management.

I attempted to use the book to help with some of my current acutely ill patients. Here I was disappointed. There was appropriate advice on the control of a patient with status epilepticus although the use of intravenous clonazepam was not mentioned. There was rather poor advice about the management of a patient with an acute bulbar palsy and although the importance of a clear airway and adequate respiration was frequently stressed, I could not find practical advice in assessing the level at which intubation and artificial respiration was necessary. Toxic confusional states, common problems encountered in the elderly by primary care physicians, were poorly dealt with. In acute leg weakness there seemed insufficient emphasis on the dangers of delay in the presence of sphincter upset when the cause was compression of the cord or cauda equina. There was no mention of how to help a patient with acute trigeminal neuralgia.

This work contains much useful information assembled succinctly. The sections on headache, visual disturbances, dizzy patients

and trauma are good. It is presumably written for North American readers and this may explain why tic paralysis has as much coverage as myasthenia gravis. It may prove a helpful text for primary care doctors in the assessment and differential diagnosis of some neurological emergencies but as a neurologist I had hoped for more.

T. FOWLER

Fundamentals of Human Neuropsychology (2nd Ed). By Bryan Kolb and Ian Q Whishaw. (Pp 785; £24.95.) New York/London: W H Freeman & Co Ltd, 1985.

It was with great pleasure that I learned of the publication of a second edition of this excellent textbook. The first edition has served since 1980 as the text of choice for many undergraduate courses, and is an excellent introduction to neuropsychology at any level and for any discipline.

Neuropsychology has developed considerably since the first edition was published. This is reflected in the increase in size of the second edition. While part of this increase can be accounted for by simple updating of chapters from the first edition, the authors have not limited themselves to this. While keeping to the same general format, several sections have been expanded substantially.

The biological content of the book has been increased, with more detail on cell structure and the effects of trauma, and upon the evolutionary principles underlying central nervous system structure and development. A complete new chapter deals with the anatomical and functional organisation of the neocortex. The second major change is an increase in the clinical content. This involves more detailed consideration of clinical neuropsychology. This is dealt with in relationship to problems faced in the related disciplines of neurology, psychiatry and education.

Both editions are written in a clear and easy style, which nevertheless is able to convey very large amounts of information. This is achieved partly by avoiding strings of references in the text. Instead, key studies are cited, and many described in considerable detail, while the bibliography at the end of each chapter contains a more comprehensive list of references.

While all textbooks are a compromise, this one has achieved an admirable balance between breadth, depth maintaining clarity throughout. It can be recommended to student, teacher, researcher or clinician as a first or additional text in neuropsychology.

RICHARD BROWN