LETTERS TO
THE EDITOR

New variant Creutzfeldt-Jakob disease presenting with loss of taste and smell

Abnormalities of smell and taste have been described in some neurodegenerative diseases including Alzheimer’s dementia, idiopathic Parkinson’s disease, Huntington’s chorea, Korsakoff’s syndrome, Pick’s disease, the parkinsonian dementia complex of Guam, and amyotrophic lateral sclerosis.1 Hyposmia and hypogeusia are a feature of normal aging but they have not been recorded as a prominent early feature in previous reports of variant Creutzfeldt-Jakob disease (vCJD).2,3 We describe a patient with vCJD whose first symptoms included deficits of taste and smell.

At the time of his initial neurological assessment, this 54 year old ceramic tiler had a 12 month history of loss of taste and smell, anxiety, low mood, and unusually short temper. He first became aware that something was wrong when he lost the ability to differentiate the taste of tea from that of beer. Loss of taste and personality change progressed gradually. He began to crave vanilla ice cream although he had never liked sweet foods in the past. He became fearful of leaving his house. Six months into his illness he became increasingly sleepy. On average he would sleep for 12 hours a day although he could sleep for 20 hours at a time. He developed slurred speech, unsteady gait, upper limb tremor, and impotence. Neither the patient nor his wife noticed any change in his memory.

On examination the patient had scanning dysarthria. His abbreviated mini mental test score was 7/10 (unable to remember an address, give his age, or name the year). He had a staring look with limitation of upgaze. Limb tone was increased with brisk tendon reflexes, ankle clonus, and bilaterally extensor plantar responses. There was mild upper limb ataxia and severe ataxia of gait. Although spinocerebellar sensation was intact, joint position sense was impaired in both lower limbs. Olfactory testing disclosed evidence of impaired smell detection and recognition. The patient thought that he could smell something when tested with lavender and tar essence but was unable to recognise or describe the smell.

Over the next 4 months the patient deteriorated rapidly with progressive ataxia, confusion, and agitation. He developed myoclonic jerks 2 weeks before dying of bronchopneumonia. Sections of brain (brain weight 1322 g) showed extensive tissue involvement with prominent neuronal loss, astrocytosis, spongiform change, and numerous Kuru-type plaques, including florid plaques. These changes were seen in the cortices of frontal, parietal, temporal, and occipital lobes, basal ganglia, thalami, periventricular grey matter, brain stem, olfactory areas of the cerebrum, and the cerebellar cortex. Spongiform change and plaques were most prominent in the cortical regions and cerebellum. Plaques were particularly dense in the molecular and granular layers of the cerebellar cortex. Neuronal loss, gliosis, and spongiform change were most conspicuous in the basal ganglia and thalamus. Immunohistochemistry for prion protein (PrP) deposition after immunostaining with PrP antibody (PrP KG9 1:150, monoclonal antibody, courtesy of the CJD surveillance centre in Edinburgh) showed prominent staining in the plaques and diffusely in the neuropil of cerebral and cerebellar cortices. The olfactory tract showed prominent and diffuse staining for prion protein (PrP) associated with vacuolation (fig 1).

It is difficult to determine the precise cause of our patient’s olfactory and gustatory dysfunction. There were significant histopathological changes in the basal forebrain where both taste and smell are represented.4 Deposits of prion were, however, also found in many other parts of the brain involved in the neural processing of these senses. Changes were particularly prominent in the olfactory tract. Our patient illustrates that our understanding of the clinical range of vCJD remains incomplete. Loss of taste and smell are not at all specific to vCJD. These symptoms can have many causes including...
other neurodegenerative disorders. However, the diagnosis of vCJD cannot be considered if hypoguesia and hyposmia are accompanied by changes of personality and other, more “typical” features of vCJD.

M REUBER
A S N AL-DIN
Department of Neurology, Pinderfields General Hospital, Aberford Road, Wakefield WF1 4DG, UK

A BABORIE
A CHAKRABARTY
Department of Neuropathology, General Infirmary at Leeds, Great George Street, Leeds LS1 3EX, UK

Correspondence to: Dr A S N Al-Din

Tibbetts described 10 patients with writer’s cramp. Bindman and ric literature, clinicians sporadically pointed

basal ganglia dysfunction in patients with

er’s cramp was of psychogenic origin. How-

ever, recent electrophysiological and neu-

ology in writer’s cramp, together with the

ference between the writer’s crank group and control groups was significant (p=0.036, corrected for three comparisons) or normal control group (p=0.036) but not between the disease control group and the normal control group (p>0.099). The compulsive symptoms of the writer’s crank group were mainly related to cleaning and ordering.

The result of our study showed that patients with writer’s cramp had higher obsessive-compulsive symptoms than the disease control group or normal control group.

Table 1 Ages, disease duration, and sex ratio of writer’s cramp group and control groups

<table>
<thead>
<tr>
<th>Disease</th>
<th>Mean age</th>
<th>Disease duration</th>
<th>Sex ratio</th>
</tr>
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<tbody>
<tr>
<td>Writer’s crank</td>
<td>42.6 (16.5)</td>
<td>1–9</td>
<td>male/female</td>
</tr>
<tr>
<td>Disease control</td>
<td>44.9 (16.2)</td>
<td>1–5</td>
<td>2 (1.6)</td>
</tr>
<tr>
<td>Normal control</td>
<td>45.1 (16.2)</td>
<td></td>
<td>6/6</td>
</tr>
</tbody>
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Although according to the classic literature the patients with writer’s cramp often have obsessive personality features,1 the present study is the first to confirm the clinical finding using objective psychometric measures.

The disease control group consisted of patients with peripheral nerve lesions, who had discomfort in writing comparable with the patients with writer’s cramp in this study, who were treated with muscle afferent block.2 Thus the current result does not deny the possibility that the condition could cause abnormal psychopathology in writer’s cramp.

Recent studies reported abnormal metabolic activity in basal ganglia together with frontal and anterior cingulate areas in patients with obsessive-compulsive disorder. These data suggest basal ganglia dysfunction as a neural basis of obsessive-compulsive symptoms (for a review, see Saxena et al). Therefore, we suspect that basal ganglia dysfunction is the common neural basis of writer’s cramp and obsessive-compulsive symptoms in other forms of focal dystonia or spasmodic torticollis and blepharospasm, high obsessive-compulsive symptoms were reported.3 Thus, the basal ganglia hypothesis of obsessive-compulsive symptoms may be applied to focal dystonia in general. As obsessive-compulsive symptoms of the patients in this study were not severe enough for the diagnosis of obsessive-compulsive disorder, and due to the small sample size, these findings should be interpreted with caution. Larger studies are necessary in clarifying the pathophysiology of writer’s cramp and associated obsessive-compulsive symptoms.


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www.jnnp.com
A 62 year old male patient presented with a longstanding history of slowly progressive limb weakness, speech, and swallowing difficulties. In 1983 a diagnosis of amyotrophic lateral sclerosis had been made. At that time his physical examination showed tongue atrophy with fibrillations, proximal limb weakness, and brisk lower limb tendon reflexes. Electromyography showed abnormal “spontaneous activity” with fibrillations and positive sharp waves in muscles of all limbs. His further medical and family history was unremarkable.

In January 2000 neurological examination showed mild facial weakness, marked atrophy and fibrillations of the tongue, severe dysarthria and dysphagia, atrophy, and weakness of the shoulder girdle and arm muscles, and an unsteady and broad based gait. Apart from brisk knee jerks, deep tendon reflexes were absent and plantar responses were negative. Sensory testing was normal. General physical examination showed slight gynaecomastia. Laboratory testing showed raised creatine kinase (305 U/l) and lactate dehydrogenase (195 U/l) concentrations. Needle EMG demonstrated positive sharp waves and fibrillation potentials and long duration polyphasic motor unit potentials with increased amplitudes in muscles of all limbs. By contrast, motor and sensory nerve conduction studies gave normal results.

As cervical myelopathy is an important differential diagnosis in patients with suspected motor neuron disease, cervical MRI was performed. As shown in figure 1, MRI disclosed marked cervical spondylisis with appreciable narrowing of the spinal canal between C3 and C6. In addition, T2 weighted images showed intramedullary changes with foci of high signal intensity at the level of C5 indicating myelopathy. Although these changes may readily explain the weakness in his upper limbs, the cause of bulbar symptoms and denervation in his lower limbs remained unclear.

The presence of slight bilateral gynaecomastia prompted us to look for androgen receptor gene mutations, which cause X linked spinal bulbar muscular atrophy. This disorder, also known as Kennedy syndrome, is caused by an unstable expansion of a CAG repeat in exon 1 of the androgen receptor gene (Xq11–12). The androgen receptor is highly expressed in motor neurons of the gene (Xq11–12). The androgen receptor gene mutations, which cause X linked spinal bulbar muscular atrophy, result in neuron that are not able to produce androgens. The patient presented with aakylosis, ataxia, headache, cervical pain, and Valasva induced dizziness. Various ocular motor abnormalities have been reported in patients with ACM I. Among these, downbeat nystagmus and peri- odic alternating nystagmus are the most common. Other often encountered ocular signs, such as gaze evoked nystagmus, rebound nystagmus, and impaired smooth pursuit, reflect cerebellar involvement.

Vertigo of vestibular origin, being periph- eral or central, is usually accompanied by nystagmus and nausea, or vomiting, and is often influenced by head position. The entity of central positioning vomiting without, or little, vertigo and nystagmus (post- turally evoked vomiting (PEV)) was first reported by Drachman et al and later recognised by Brandt and Baloh and Halmagyi. Posturally evoked vomiting is generally poorly known as a warning symptom of a posterior fossa lesion and is often misinter- preted. Whereas it has been documented in patients with posterior fossa tumours, it has not been reported in patients with develop- mental abnormalities. We report on a patient with ACM I where PEV was the most promi- nent presenting symptom.

This 57 year old woman was seen in our vertigo clinic because of gait unsteadiness and postural vomiting. Her history included an aortic valve replacement for aortic insuffi- ciency, nephrolithiasis, and peptic disease. She was treated with warfarin.

For years, she had dizziess and severe nausea while looking up. During the past months she described nausea and vomiting appearing when she tilted her head to either side. Lately, she had become unsteady. She also complained about left high pitched tinnitus and intermittent pain in the left shoulder.

On examination her eyes were properly aligned with a full range of movements. No primary or gaze evoked nystagmus was seen, with and without Frenzel’s glasses. The saccadic eye performance was normal, but the smooth pursuit in both the horizontal and the vertical plane was impaired saccadic eye tracking in the horizon- tal plane. The optokinetic nystagmus was normal in the lower limbs. The plantar toe responses were flexor. Sensation was normal. The gait was atactic and the Romberg test negative.

On the tests in the Dix-Hallpike position to either ear, as well as in the head down position, the patient reported severe nausea, and became pale and perspired. However, no nystagmus was seen either by direct observation, or with Frenzel’s glasses. The symptoms persisted with repetition of the positioning.

An electroneystagmogram (ENG) docu- mented saccadic eye tracking in the horizon- tal plane. The optokinetic nystagmus was asymmetric with little increment after in- creased speed velocity of the target. When supine and with her head turned to the left, nystagmus of 7°, beating to the left, was recorded. No nystagmus was recorded on Hallpike testing. The caloric test was within normal limits.
A behavioural audiogram showed mild bilateral sensorineural hearing loss in the frequencies of 2000 Hz–8000 Hz with normal speech discrimination, interpreted as presbyacusis. The brain stem auditory evoked potentials were normal.

Brain T1 and T2 weighted MRI with gadolinium enhancement disclosed low lying cerebellar tonsils with elongation of the medulla and pons, compatible with ACM I. A brain stem or cervical syrinx was not demonstrable (fig 1).

In view of the progressive symptomatology, posterior fossa decompression was considered, but postponed because of the cardiac situación of the patient. Clonazepam was offered to the patient for alleviation of the posturally evoked symptoms, but was refused because of possible sedation.

Central paroxysmal positioning vertigo occurs transiently on changing the head position, as opposed to central positional nystagmus, which persists as long as the head position is sustained.

Central paroxysmal positioning vertigo can be differentiated from benign paroxysmal positioning vertigo by its shorter latency, longer duration of the attack, and a direction changing nystagmus which is not attributable to stimulation of a single canal.

A diagnosis of chronic paroxysmal hemicrania was, and he was prescribed indomethacin (50 mg three times a day). With this his headaches were delayed until Tuesday morning and the duration of the headaches was reduced to less than 24 hours. The headaches also became less predictable.

A more predictable form of chronic paroxysmal hemicrania, which attacks last between 20 and 30 minutes and are accompanied by ipsilateral nasal congestion and lacrimation. Attacks of chronic paroxysmal hemicrania can, however, have a clockwork regularity and are abolished by indomethacin. Headaches in this case are also different from chronic cluster headache as the paroxysms occurred many times throughout the day (repetition rate 12–16/day) and the total duration of an "attack" could be up to 72 hours. Recently another variant of chronic paroxysmal hemicrania—hemicrania continua—has been described and these headaches are not migrainous and continuous. The degree of cervical spondylosis in this patient was mild, and furthermore the nature of the attacks was not that of cervicogenic headache. SUNCT syndrome is a type of paroxysmal unilateral headache consisting of short lasting, unilateral, neuralgiform headaches with conjunctival injection and tearing. Patients have up to 30 paroxysms/hoour, occurring daily. This diagnosis is also highly unlikely in our patient, with his clinical presentation and therapeutic response.

The patient had attacks of severe headache on the right on four consecutive days during a week of night shifts as a warehouseman. In between the Monday “lunchtime headaches”, he remained well. He had no personal or family history of migraine. He was taking propranolol for mild hypertension. His examination was normal. There was mild spondylosis on plain radiology. Brain CT showed minor atrophy.

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Painful stimulation

Once again, the meaningless term “response to pain” has been allowed to appear in the literature. Unless the nature of the stimulus is specified, “noxious stimulation” also, of course, exist. But what is “pain” permitted without qualification? It is “pain” permitted without qualification whatsoever that it was painful. Furthermore, it is “pain” permitted without qualification.

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In this particular instance, the patient was unconscious and the brain stem was separated from higher centres. The stimulus may have been noxious, but there is no evidence whatever that it was painful. Furthermore, as it is insisted, rightly, that other sensory stimuli be fully and accurately described, why is “pain” permitted without qualification? This often means pricking with a pin. Unless the pin or needle is driven in and twisted, the modality tested is in fact sharpness discrimi-
nation and not pain—the two are dissociated in some lesions. Mechanical noxious stimulation, which is interpreted as painful in the intact and fully conscious person, may be brought about by skinfold pinch or various other manoeuvres; thermal and chemical noxious stimulation also, of course, exist. But unless the nature of the stimulus is specified, the expression “noxious stimulation” (let pain and painful stimulation be forever abolished) is not only almost devoid of relevance, but misleading.

It also seems unfortunate that the recent Journal of Neurology, Neurosurgery, and Psychiatry/Association of British Neurologists supplement on stroke did not mention central poststroke pain. This difficult neurological sequel occurs in some 8%–10% of survivors of stroke (6000–7000 new cases/year in the United Kingdom). Its correct diagnosis, treatment, and possible prevention should be a matter of great concern to neurologists.

D BOWSHER

Pain Research Institute, University Hospital Aintree, Loner Lane, Liverpool L9 7AL, UK

Correspondence to: prj@liv.ac.uk

Is it really Alzheimer’s disease?

We read the recent article of Cappa et al with great interest.1 Using HMPAO SPECT, the authors studied 24 patients diagnosed as having (probable) Alzheimer’s disease (AD) on the basis of DSM-III-R and the NINCDS-ADRDA criteria. According to Butters et al, they distinguished, on the basis of neuropsychological tests, patients with a diffuse pattern of cognitive deficits (dAD) from those with focal temporal lobe dysfunction (FTLD).2 Patients with FTLD are reported by both studies as having a better cognitive prognosis. Whereas the dAD group had diffuse perfusion defects, the patients with FTLD showed a circumscribed reduction of tracer uptake in the left or right, or both temporal lobes.

We comment on the problem of suggesting AD in these patients with dementia. In the study of Butters et al, seven of the patients of the FTLD group never had an MRI. Six had the typical histopathological signs of AD. One patient, however, showed the features of hippocampal sclerosis (HS) and not those of AD (Cappa et al wrongly state that all necropsied cases of Butters et al had AD). Two major groups of patients with the histopathological signs of HS have been described in the literature: (1) HS is the most common morphological substrate of medial temporal lobe epilepsy (MTLE). The af-
fected patients are known to show character-

istic memory impairment, which correlates well with the degree of pathological changes. Progress of memory impairment in MTLE is very slow and patients with these functions are usually preserved. Most (but not all) of them have an abnormal MRI signal and HMPAO SPECT usually shows temporal hyperper-
fusion.3 (2) Patients with HS have been described in necropsy series of patients with dementia. It is unknown whether these patients could have been identified by MRI, whether they had abnormal brain perfusion, and what the perfusion pattern would have been.

Cappa et al did not exclude patients with epilepsy, and it is not clear if their MRI pro-
cedure included high resolution T2/FLAIR sequences an
gulated along or perpendicular to the hippocampus, which considerably in-
creases the sensitivity for detection of MTLE-HS. They also had no histopathologi-
cal evidence of AD. Thus, the authors may have included an unknown number of patients who actually did not have AD, but, for example, had temporal lobe epilepsy or dementia with the morphological substrate of HS. It is noteworthy that in a recent histopathological study on the causes of dementia (with further references)4 it was noted that fewer patients than clinically fuscised fell into the histopathological category of AD but among others—fall into the category of HS.

Cappa et al: We are grateful to Bien, Helmstaedter, and Elger as they allow us to clarify a point of our study that was not explicitly discussed in the paper recently published in this journal.

We obviously agree with them that, in the absence of histopathological confirmation, the diagnosis of “probable” Alzheimer’s disease (AD) can be questioned on method-

ologial grounds, particularly in patients with focal temporal lobe dysfunction (FTLD).

However, we think it rather implausible that some of our patients with FTLD were in reality affected by other non-AD diseases, in particular by those suggested by Bien et al. Measured temporal lobe dysfunction in MTLE can be related to dementia sustained by hippocampal sclerosis (HS).

As for MTLE, Bien et al consider a relevant source of possible errors in the diagno-
sis of patients with AD and FTLD (MTLE-HS), they distinguished, on the basis of neuropsychological studies.

On the other hand, a careful review of these studies leads to the following conclusions: (1) in a general demented population, pure HS (HS without Alzheimer-type or other well characterised degenerative or vascular pathological changes) seems to be a very rare cause of dementia. Al-Aid et al5 found only 0.4% of pure HS in a retrospective study of 1771 unselected demented patients and Jellinger6 obtained similar results (0.53%) in a necropsy series of 746 demented subjects older than 55 years! (2) HS significantly contributes to dementia only in old or very old (>80 years of age) demented patients with documented cardiovascular diseases (for example, ischaemic heart disease, arrhythmias, congestive heart failure in about 88% of cases) or with depression as another frequent (65%) clinical feature.7 It is unknown whether these patients could have been identified by MRI, whether they had abnormal brain perfusion, and what the perfusion pattern would have been.

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Patients reported in our study as affected by AD with FTLD were clearly different from those described in studies claiming a significant contribution of HS to dementia. Their mean age was 67.3 (SD 8.1). All of them had received a diagnosis of probable AD according to the NINCDS-ADRDA criteria. None of them had a history of cardiovascular disease or depression. At MRI—performed with high resolution T2/FLAIR sequence, using transverse and coronal planes to obtain a good visualisation of the mesial temporal cortex (hippocampal and parahippocampal gyri)—all of them exhibited atrophic changes consistently involving and yet unique hippocampal structure, in the absence of focal lesions attributable to vascular or other diseases. With regard to this last point, it seems to us noteworthy that Helmstaedter and Elger, studying 65 patients with chronic pharmacoresistant MTLE sustained by HS, found significant differences with episodic memory tasks (learning, retrieval, and recognition of a word list), but not with semantic memory tasks (vocabulary). In our FTLD group, conversely, the presence of semantic memory impairment in association with episodic memory deficit was in agreement with the typical progression of AD pathologically process, spreading from the mesial temporal areas to the adjacent temporal neocortex. Incidentally, in four patients with FTLD who completed a clinical and neuropsychological follow up of at least 3 years an evolution towards a more diffuse pattern of cognitive impairment has now been found. In two other patients with FTLD, who recently underwent neuro-psychological resteting after a 12–15 month interval from the baseline assessment, a significant worsening of cognitive deficits, which nevertheless still remained relatively circumscribed to episodic and semantic memory, has been documented.

Incidentally, in the light of the above cited studies investigating the relationships between HS and dementia—we think that the clinical characteristics of our patients with FTLD can hereby explainable in terms of an underlying HS and more consistent with the diagnosis of probable AD.

Correspondence to: Dr G Villa icnm@unicatt.rm.it

BOOK REVIEWS


This is quite a comprehensive multiple author textbook which sets out in detail clinical, pathological, investigative, and medical and surgical management of patients with focal epilepsy. The standpoint of the editors is to use the words “focal epilepsy” rather than partial epilepsy because they think that it is more descriptive of the probable underlying pathophysiological changes. As such, the book is of particular interest to epileptologists and other specialists likely to be involved in developing an epilepsy surgery programme. Many of the other epilepsies would of course have more widespread or multifocal underlying substrates or generator circuits.

The selection of the editors for individual chapters incorporates a diverse range of specialists principally from Europe and North America. As such there is a useful diversity of views represented and many of the authors selected are acknowledged world experts in the areas of their chapter.

The text is clearly written with good illustrations and high quality photographs. There is a standard useful summary of key points with each chapter, and clearly there has been significant editorial input to produce an easily readable textbook with common themes.

The text covers many of the areas needed to support an epilepsy surgery programme, although it might be advantageous in a future edition to include further information about the rapidly expanding field of neurogenetics and epilepsy. The overall quality of the material would make it a valuable inclusion in a specialist library or to support physicians or associated specialists working in the field of epilepsy surgery.

DAVID FISH


There are few psychiatric conditions as devastating as childhood schizophrenia. Case descriptions became available soon after schizophrenia was first recognised as an entity but a childhood onset is fortunately rare. Early samples probably included children with autistic spectrum disorders as these were only recognised in the 1940s. In spite of shared deficits there are important clinical differences between autism and childhood schizophrenia. The wealth of research into autism has not been matched in the field of childhood schizophrenia, perhaps because of its rarity but also because clinicians can draw on the findings on adult disorders. This book is written by experts in the field and helpfully describes current thinking and knowledge in childhood schizophrenia. It includes a chapter historical aspects, and uses it as a means for clinicians, developmentally informed guidelines on differential diagnosis and management. There is a full discussion on the use of traditional and newer anti-psychotic medication.

Authors make well the case for the similarities between childhood and adult schizophrenia, they document the empirical evidence indicating increased pre-morbidity developmental and personality anomalies, perhaps a stronger genetic vulnerability and worse outcome with a childhood onset. Research findings are detailed on information processing deficits and on anomalies of thought processes compared to adults, although the differences are more developmental in adult patients. The important on-going research by the National Institute of Mental Health is referenced. Outstanding areas for future research are identified. This should attempt a better description of pre-morbid developmental and behavioural anomalies currently subsumed under a bewildering array of overlapping syndromes and their differentiation from those seen in autism.

This book represents a welcome update on research and clinical thinking in childhood schizophrenia and will be useful to clinicians.

ELENA GARRALDA


Charcot-Marie-Tooth disease. A practical guide, is a small book compiled by CMT International UK with the aim of providing an overview of Charcot-Marie-Tooth disease (CMT) with a particular emphasis on providing practical day to day advice for living with the disease. It is aimed at doctors and patients and other people involved with CMT. It is well written and excellently presented and provides a range of information that the intended audience will find invaluable.

The book is divided into three main sections. The first section deals with genetic and medical issues. The known genetic variants of the disease are well described and accurate except for one mistake stating that the gene duplication that causes CMT1a is on chromosome 22 when it is actually on chromosome 17.
chromosome 17. I thought the section covering CMT inheritance was particularly well presented and illustrated using simple diagrams to explain the various inheritance mechanisms. There was also a very useful glossary of scientific and medical terms in the back information.

The second section deals with living with CMT. This covers many important areas for the patient including coming to terms with the diagnosis, care of the feet, pain control, and secondary complications. Foot deformities and their surgical correction were particularly well covered.

The third section deals with practical issues including finding work, having a baby, driving, and CMT and aids to daily living. This section is particularly useful in providing contact details for many different organisations who will help patients. All three sections are supported by informative appendices.

This book is an excellent patient oriented guide, full of useful information and contacts. It will be a particularly useful book to recommend to newly diagnosed patients. MARY REILLY


This is an interesting book, directed at a wide audience including neurologists, medical students, social workers, and pharmacists, which sets out to demonstrate the management of epilepsy in practice by presenting case histories of people with seizures. The issues addressed include such common clinical difficulties as diagnosis (and the problem of non-epileptic attacks), epilepsy in pregnancy, withdrawal of antiepileptic drugs, and status epilepticus. Alternative therapies and psychiatric issues are also discussed. Each history is followed by questions about the management of the patient, which the author answers according to his practice, with appropriate explanations. The second part of the book consists of a sizeable Resources section providing such diverse information as the classifications of epileptic seizures and syndromes, seizure history checklist, home safety checklists, lists of drugs and their modes of action, websites for physicians and patients, lists of epilepsy centres, and driving regulations within the United States.

Both sections of the book contain a wealth of information, and the histories, which are easy to read, provide a useful insight into the problem areas of epilepsy, together with possible solutions. Inevitably the views given describe the author's personal practice, and the nature of the book does not allow detailed examination of the evidence underlying the decision making. However, it emphasises the importance of tailoring treatment to the individual patient, and addresses the social issues in a manner often missing from larger texts. I found the fact that the book was clearly directed at an American audience, which was apparent not only in the Resources section, but also colouring the choice of medication and the advice given (for example, on driving), somewhat distracting. Nevertheless, it should prove useful reading for those involved in the care of people with epilepsy.

YVONNE HART


Richard Snell's Clinical anatomy for medical students is a successful clinically oriented text that contains essential facts and explanations without excessive detail. His parallel neuroanatomical text has similar aims.

Each chapter begins with chapter objectives; these are actually a brief explanation of broad aims for learning rather than specific educational objectives. There follow the main anatomical information in a chapter. New terms are printed in bold text, a style that is less than effective as attention is drawn to these rather than to key points of understanding. Next comes an extensive section of clinical notes that constitute the greatest strength of the book. They make clear the ways in which anatomical knowledge underpins diagnosis and management, and provide the student with valuable motivation to gain control of the key facts. Understanding is then tested by a set of clinical problem solving scenarios with answers. The last element is a set of review questions in a multiple choice format, many of which test topographical neuroanatomy at an excessively detailed level.

The first three chapters cover gross anatomy and cell biology of the nervous system and the fundamentals of nervous system function. These take things fairly gently and a good deal of the material will be familiar to a medical student who already has a reasonable knowledge of anatomy and physiology. The material in the functional chapter in particular is rather variable in level and quality.

The next four chapters provide a fairly conventional ascending regional treatment of the CNS from spinal cord through brain stem and cerebellum to cerebral cortex. The author's intention to provide an essential core of anatomical information of the chapter. New terms and two thirds of the price. It is produced the compact, clear guide to the anatomical basis of clinical neurology needed by modern medical students; the message is still buried in excessive anatomical detail and terminology. However, his book deserves recommendation for its clinical notes. These could provide the starting point for defining the core anatomical knowledge in a future edition.


This text recycles information and illustrations from his larger textbook in a form designed for rapid revision and as a reminder of forgotten neuroanatomy for clinical attachments and recent graduates. Use of clinical notes and review questions parallels the larger text, though the chapter organisation is somewhat different. The factual content has been reduced in length, often to sequences of short statements closer to lists than to explanation. The quality of illustration is also considerably reduced by exclusion of colour.

The result is about half the length of the main text and two thirds of the price. It is hard to imagine why a student or junior doctor who has used the larger book or some other clinical anatomy text would wish to buy this considerably inferior product, still far too large to provide headlines for storage in short term memory.

ANTHONY FIRTH

CORRECTION

Frisoni GB. Structural imaging in the clinical diagnosis of Alzheimer's disease: problems and tools. J Neurol Neurosurg Psychiatry 2001;70:711-18. The following acknowledgments should have appeared in this editorial:

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