also failed during the fires. Many of the vehicles used were powered by petrol motors, or had petrol pumps working the fire fighting equipment. The intensity of the heat was sufficient to vaporise the fuel in the lines. As a result they were often trapped in extraordinarily dangerous circumstances without equipment to protect themselves.

Having spoken to many of the fire fighters, this experience was both way beyond their wildest expectations of a major fire and had all the elements of extreme surprise and threat. Having interviewed many victims of the disaster (McFarlane, 1986) as well as studied the families of those victims (McFarlane *et al*, 1987), it appears that the experience of these fire fighters was often worse than that of the victims themselves because they were repeatedly exposed to extreme danger as well as having at times to remain on duty for periods of up to three days.

The experience of these fire fighters was thus one similar to all victims of extreme threat and danger. While they had some training, in the circumstances experienced, this offered them little or no protection. Therefore these data, I believe, are generally applicable to the aetiology and phenomonology of PTSD.

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References

McFarlane, A. C. (1986) Post traumatic morbidity of a disaster: a study of cases presenting for treatment. *Journal of Nervous and Mental Disease*, **174**, 4–14.

——, Policansky, S. K. & Irwin, C. (1987) A longitudinal study of psychological morbidity in children due to a natural disaster. *Psychological Medicine*, **17**, 727–738.

Webster, J. K. (1986) *The Complete Australian Bushfire Book*. Australia: Thomas Nelson.

Malaria presenting as atypical depression

Sir: Arun Prakash & Stein (*Journal*, April 1990, **156**, 594–595) mention hysterical stupor and atypical depression as sequelae to cerebral malaria. However, this seems disputable.

The World Health Organization (1986) specifically recommends to restrict diagnosis of cerebral malaria to patients with unarousable coma (showing non-localising or absent motor responses to noxious stimuli), in whom other causes of encephalopathy have been excluded. So, mild or transient cerebral dysfunction in a patient with malaria should not automatically be diagnosed as evidence of sequestration of parasitised erythrocytes in the cerebral vascular bed, which is the underlying pathophysiology of cerebral malaria (Osuntokun, 1985).

In addition, it seems improbable that at the time of admission the patient was actually suffering from malaria. In a non-immune individual not using antimalarial prophylactic medication, normal clinical as well as laboratory tests virtually rule out the diagnosis. Even in low-grade infections, splenomegaly, slight anemia and a raised erythrocyte sedimentation rate are obligatory (Manson-Bahr & Apted, 1982).

Plasmodium vivax malaria, which occurs in Thailand, may remain dormant for a long time, especially after insufficient chemoprophylaxis (Manson-Bahr & Apted, 1982). It can be reactivated among others by immunosuppression. A major depressive episode (Denman, 1986), malnutrition (Chandra, 1983) and, possibly, treatment with a tricyclic antidepressant (Denman, 1986) have been reported to impair immunocompetence. Therefore, it appears more likely that the malarial attack in this patient occurred in the course of and not before her depressive episode. Of course, this does not make treatment any less imperative.

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References

Chandra, R. K. (1983) Nutrition immunity and infection: present knowledge and future directions. *Lancet*, *i*, 688–691.

Denman, A. M. (1986) Immunity and depression. *British Medical Journal*, **293**, 464–465.

Manson-Bahr, P. E. C. & Apted, F. I. C. (1982) Malaria and babesiosis. In *Manson's Tropical Diseases* (18th edn), pp. 38–71. London: Baillière Tindall.

Osuntokun, B. O. (1985) The nervous system in malaria. *Tropical and Geographical Medicine*, **37**, 209–215.

World Health Organization Malaria Action Programme (1986) Severe and complicated malaria. *Transactions of the Royal Society of Tropical Medicine and Hygiene*, **80** (suppl.), 3–50.

Anorexia nervosa in people of Asian extraction

Sir: Bhadrinath (*Journal*, April 1990, **156**, 565–568) presented three case-reports of anorexia nervosa in adolescents of Asian extraction which were very interesting. We are led to believe that the condition in non-white populations in the UK is very rare. Despite the small numbers of people from ethnic minority groups in the area of East Suffolk we have seen the condition in a teenage girl from a

Bangladeshi family. We also came across some problems with fasting at Ramadan. We agree with Dr Bhandrinath that there is a need for a better understanding of attitudes to body shape and food within different subcultures. We are frequently reminded that the second generation of children from ethnic minority families do not necessarily follow the views and values of their parents nor indeed that of the host culture in which they presently live. Although work has been done at looking at anorexia nervosa in black populations (Buchan & Gregory, 1984; Holden & Robinson, 1988), it would be interesting to look at the occurrence of anorexia nervosa and bulimia nervosa in British-born Asian patients.

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References

BUCHAN, T. & GREGORY, L. D. (1984) Anorexia nervosa in a black Zimbabwean. *British Journal of Psychiatry*, **145**, 326–330.
HOLDEN, N. L. & ROBINSON, P. H. (1988) Anorexia nervosa and bulimia nervosa in British blacks. *British Journal of Psychiatry*, **152**, 544–549.

SIR: We read with interest the article by Badrinath (*Journal*, April 1990, **156**, 565–568), and wish to make some comments based on our experience with eating disorders in India. Although published literature is lacking, it is likely that these disorders are far less prevalent in India than in developed countries. However, more interesting is the finding that the presentation of eating disorders encountered in India also varies from the typical description of anorexia nervosa. Our patients are also young females showing decreased appetite, excessive weight loss and amenorrhoea. But a clear body image disturbance or fear of becoming fat is hardly ever seen. Hyperactivity, abnormal food handling and bulimic symptoms are also very uncommon. On the other hand, vomiting is a frequent symptom, often contributing significantly to the weight loss. Sometimes this presentation is accompanied by other functional or clear conversion symptoms (e.g. localised pain, aphonia, hysterical seizures). Most of these patients do not satisfy the necessary criteria of anorexia nervosa according to the classification systems like the DSM–III–R, although they share the central feature of refusal to maintain body weight over a minimum normal weight for age and height. Often these patients are placed in the residual category of eating disorders not otherwise specified.

The lesser prevalence as well as variation in presentation are both perhaps related to socio-cultural factors. As Badrinath mentions, traditional Indian culture does not emphasise thinness as a must for feminine beauty. Neither is the concern with body image as much as that in the West. In contrast to anorexia nervosa, hysterical symptoms are commonly encountered in India (Saxena *et al*, 1986), while they have become rare in developed countries. It may be relevant here to refer to Bemporad *et al* (1988), who have discussed the similarities between anorexia nervosa and hysteria. They postulate that both these seem to be expressions of age-specific conflicts intensified by constrictive cultural ideas. This may explain the inverse relationship between the prevalences of anorexia nervosa and hysteria in the developed and the developing countries. From this viewpoint, the occurrence of hysterical symptoms in Indian patients with anorexia nervosa may also not be entirely coincidental.

Indian culture is increasingly coming under the influence of Western norms and values. It will be interesting to observe whether anorexia nervosa becomes more prevalent as well as more typical in presentation in the coming years.

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References

BEMPORAD, J. R., RATEY, J. J., DRISCOLL, G. O., *et al* (1988) Hysteria, anorexia and culture of self denial. *Psychiatry*, **51**, 96–103.
SAXENA, S., PACHAURI, R. & WIG, N. N. (1986) DSM–III diagnostic categories for ICD–9 hysteria: a study on 103 cases. *Indian Journal of Psychiatry*, **28**, 47–48.

Temporal lobe in schizophrenia

SIR: The role of abnormalities of temporal structure in schizophrenia (*Journal*, May 1990, **156**, 615–619) is supported by reports of temporal atrophy in schizophrenics evaluated by computerised tomography (Yates *et al*, 1990), right temporoparietal inefficiency in schizophrenics assessed during a continuous performance test by positron emission tomography (*Journal*, February 1990, **156**, 216–227), and reduction in the total volume of the gray matter in the left temporal lobe in the brains of monozygotic twins discordant for schizophrenia (Suddath *et al*, 1990).