Psychophysiological investigations of patients with unilateral symptoms in the hyperventilation syndrome

SIR: I have no quarrel with the results presented in the paper by O'Sullivan *et al* (*Journal*, May 1992, **160**, 664–667), but, at the same time, there is no question that peripheral local mechanisms can be responsible for localised/unilateral symptoms in patients who are in an abnormal metabolic state, in this case in tetany from hyperventilation. One has only to remember that if one suspects tetany in patients who do *not* have symptoms, the symptoms can be produced by a tap on the nerve (Chvostek's sign) or by squeezing the nerve (Trousseau's sign). I have personally experienced tetany when participating in a metabolic experiment to induce hypokalaemic alkalosis, and at times when I had no symptoms I could produce tingling in the fingers and spasm of the thumb by resting my arm on the back of a chair, thus pressing on the radial nerve.

S. J. COHEN

8 Linnell Drive
London NW11 7LT

Longevity and Down's syndrome

SIR: The average life expectancy of individuals with Down's syndrome has increased from an estimated 9 years in 1929, to 12–15 years in 1947, and 18.3 years in 1961 (Oliver & Holland, 1986). Of liveborn Down's syndrome individuals, 44% will survive to the age of 60 years and 13.8% to 68 years respectively compared with 86.4% and 78.4% for the general population (Baird & Sadovnick, 1988). Between the years 1990 and 2010 the number of those with Down's syndrome over the age of 40 years is expected to increase by 75%, but the number with Down's syndrome over 50 years will rise by 200% (Steffelaar & Evenhuis, 1989).

Virtually all those with Down's syndrome over the age of 40 years have neuropathological changes of Alzheimer's disease (Mann, 1988). However, clinical presentation of dementia is observed in only 36% over the age of 35 years (Lai & Williams, 1989). This intriguing paradox of pathological dementia without clinical presentation remains unresolved.

I know of one 72-year-old man with Down's syndrome who shows no clinical evidence of dementia, and one 71-year-old woman with Down's syndrome who has a moderate degree of dementia. I suggest a search for elderly Down's syndrome subjects, with or without dementia. A resulting study of elderly Down's syndrome people would be of great importance in helping to understand the paradox of the presence of neuropathological Alzheimer's disease but few clinical signs. I would welcome cooperation in any resulting future study.

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V. P. PRASHER

Department of Psychiatry
Birmingham University
Queen Elizabeth Psychiatric Hospital
Mindelsohn Way
Edgbaston
Birmingham B15 2QZ

Neuroleptic malignant syndrome

SIR: The criteria for neuroleptic malignant syndrome (NMS) are well documented (Pope *et al*, 1986), but also not specific. Hermesh *et al* (*Journal*, August 1992, **161**, 254–257) present a prospective study of NMS in in-patients and exclude other diagnoses by referral to a physician.

The critical sign of hyperthermia may accompany infectious pathology; the exclusion criteria for infectious disease are not described in this study. The certain diagnosis of infectious disease, particularly of viral origin, may be difficult or impossible, even if diagnostic tests include urine culture, blood culture, chest X-ray, and lumbar puncture.

The diagnosis of other pathology may not exclude the presence of infection coexistent with NMS which has been described by, among others, Renwick *et al* (1992).

Other diagnostic criteria for NMS – autonomic disturbances, extrapyramidal signs, and clouded mentation – may accompany febrile illness in patients receiving neuroleptics.

Elevated levels of serum creatine phosphokinase (CPK) are demonstrated in one study (Cohen *et al*, 1991) in 70 of 247 (28%) patients admitted to hospital with fever, and are associated with both viral and bacterial infections. Immobilisation secondary to illness may also cause rhabdomyolysis and elevated CPK levels (Marcus *et al*, 1992).

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