cytokines as a result of HIV infection (Werner *et al*, 1988, 1989).

Reduced serotonergic neurotransmission by HIV infection may therefore contribute to explain the development of sexual dysfunction during the HIV infection.

GREEN, A. R. & COSTAIN, D. W. (1981) Pharmacology and Biochemistry of Psychiatric Disorders. Chichester: John Wiley.

- LARSSON, M., HAGBERG, L., NORKRANS, G., et al (1989) Indoleamine deficiency in blood and cerebrospinal fluid from patients with human immunodeficiency virus infection. Journal of Neuroscience Research, 23, 441-446.
- SVENSSON, K., LARSSON, K., AHLENIUS, S., et al (1987) Evidence for a facilitatory role of central 5-HT in male mouse sexual behaviour. In Brain 5-HT1A Receptors: Behavioural and Neurochemical Pharmacology (eds C. T. Dourish, S. Ahlenius & P. H. Hutson), pp. 199-210. Chichester: Ellis Horwood.
- WERNER, E. R., FUCHS, D., HAUSEN, A., et al (1988) Tryptophan degradation in patients infected by human immunodeficiency virus. Biological Chemistry Hoppe-Seyler, 369, 337-340.
- -----, WERNER-FELMAYER, G., FUCHS, D., et al (1989) Parallel induction of tetrahydrobiopterin biosynthesis and indoleamine 2,3-dioxygenase activity in human cells and cell lines by interferon-γ. Biochemical Journal, **262**, 861-866.

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Hysteria in childhood

SIR: Garralda (*Journal*, December 1992, **161**, 759–773) points to the paucity of studies on hysterical conversion symptoms in childhood in the psychiatric literature. I would like to offer some explanations for this from my own recent experience in carrying out a pilot study on this topic.

A pilot study was conducted on all children admitted to a district general hospital between December 1989 and May 1991, under all departments of the hospital. It was hoped to identify children with functional illness from the diagnoses in the ward admission books. Case notes of all such children were examined.

Of the 8517 children admitted to the hospital, 191 might have had functional illness: 160 of these were suffering from abdominal pain that did not result in surgery; the remaining 31 suffered from a variety of complaints of pain or loss of function. Four of these children fulfilled diagnostic criteria for hysterical neurosis, conversion type: one was a 16-year-old girl with a history of sexual abuse; one was a 7-year-old girl for whom no definite diagnosis was made but an investigation into sexual abuse had been undertaken some years previously; the remaining two were Asian boys aged 13 and 11. One of the boys had been

involved in a road traffic accident and his father was pursuing compensation, the other was an obese, aggressive, school refuser whose family background was unknown. Over a similar time period, two local child psychiatry in-patient units each admitted one patient with hysterical neurosis, conversion type: both were 16-year-old girls with histories of sexual abuse.

This study highlights the difficulties in identifying cases of hysterical conversion. The admission rate was just 0.4% for paediatric units and 1.4% for in-patient child psychiatry units.

In addition, the findings are suggestive of the need to exclude sexual abuse in all children presenting with hysterical neurosis (conversion type), especially if it is severe enough to warrant either paediatric admission or referral to child psychiatry.

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Hysterical conversion and developmental psychiatry

SIR: The comprehensive papers by Dr Mace (Journal, September 1992, 161, 369-377 and 378-389) on hysterical conversion do not mention its frequency in childhood. Mace's remarks on the nosological status of conversion would be reinforced if childhood, and even infancy, were taken into account. The use of hysteria as a clinical category has decreased, largely due to the confusion and obscurity of the concept. For instance, conversion disorder and hysteria have both disappeared from the chapter on disorders of infancy and childhood in the DSM-III-R manual (American Psychiatric Association, 1987). However, conversion is known to be frequent at certain phases of childhood, particularly when physiological changes shake up the mental representation of the body, both during the latency period and during adolescence. Conversion disorder in infancy can also be linked with many different types of psychopathology, ranging from a single episode in an almost normally developing child, to borderline or frankly psychotic disorders.

The role of depression in the genesis of a conversion episode is stressed by many. Such cases of early conversion disorder were described as early as 1897 by Terrien, and by some others since, including Anna Freud (1926). Goodyer (1981) proposes to label as conversion anything that looks like it regardless of age. It seems that conversion can be seen as a potentiality that tends to disappear with age, but can be elicited again in some individuals and also increased in some cultural environments.

The propensity to make a conversion – or to retain it – could at least be partly determined by a certain style of mother-child relationship. Recent advances in our knowledge of development in infancy may throw light on the origins of the conversion phenomenon. For instance, the concept of 'affect attunement', proposed by Stern (1985), can help us understand how the conversion response could be elicited through a certain kind of mother-child interaction. Here, any kind of initiative by the baby would be interpreted by the mother as being a bodily need, and she would answer in a highly aroused way. The child would then have to maintain a high level of physical excitation to keep in touch with his mother and to keep a sense of shared experience.

- AMERICAN PSYCHIATRIC ASSOCIATION (1987) Diagnostic and Statistical Manual of Mental Disorders (3rd edn, revised) (DSM-III-R). Washington, DC: APA.
- FREUD, A. (1926) An hysterical symptom in a child of two years and three months. *International Journal of Psychoanalysis*, 7, 227-240.
- GOODYER, I. (1981) Hysterical conversion reactions in childhood. Journal of Child Psychology and Psychiatry and Allied Disciplines, 22, 179-188.
- STERN, D. N. (1985) The Interpersonal World of the Infant. New York: Basic Books.
- TERRIEN, F. (1897) Hystérie infantile en Vendée. *Revue Neurologique*, 4 (19), 299-320.

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Folate and depression

SIR: The folate depression debate continues with attention currently focusing on the efficiency of folate supplementation as an adjustment to standard regimens in the management of depression (Anderson et al, Journal, January 1992, 160, 130). However, the safety of such practices should also be examined as studies have shown that increased intake of folate can interfere with seizure control in epilepsy (Strauss & Bernstein, 1974), while Reynolds (1991) suggested that excess folate intake in a pregnant woman could harm the developing nervous system of the foetus. Nonetheless, low folate levels have been found in some patients with depression. However, the results which are usually expressed as percentages do not make full use of the data for the whole group; indeed the values have varied considerably in different studies, for example 10% (Hallstrom, 1969) and 30% (Carney, 1967). The use of confidence intervals would give more accurate results.

We measured red blood cell folate levels in patients admitted to an acute psychiatric ward with unipolar and bipolar depression: 17% of the former group had red cell folate levels below 200 mg/l with confidence intervals of 274.2–349.6 mg/l; while in the latter group the figures were 9% and 233.5–309.5 mg/l. The percentage figures are not as great as in other studies but the confidence intervals were at the lower end of normal. This may suggest that low red blood cell folate levels may be an early marker of the onset of depression in some patients, and may even prove to be a sensitive marker of depression control. Measurement of red cell folate levels may have an important role to play in the clinical assessment of patients with depression.

We would therefore recommend that while investigation continues into the efficacy of folate supplementation, thought should be given to folate measurement being a part of the clinical assessment of the depressed patient.

CARNEY, M. W. P. (1967) Serum folate levels in 423 psychiatric patients. British Medical Journal, 4, 512-516.

- HALLSTROM, T. (1969) Serum B₁₂ and folate concentration in mental patients. Acta Psychiatrica Scandinavica, **49**, 19–36.
- REYNOLDS, E. H. (1991) Folic acid to prevent neural tube defects. Lancet, 338, 505-506.
- STRAUSS, R. G. & BERNSTEIN, R. (1974) Folic acid and dilantin antagonism in pregnancy. Obstetrics and Gynaecology, 44, 345-348.

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Outdated ECT machines

SIR: Dr Pippard's article (*Journal*, May 1992, **160**, 621–637) makes an important recommendation which is supported by the result of a recent audit of electroconvulsive therapy (ECT) practice at Glenside Hospital. He advises that the Ectron Duopulse Series 3 machine does not give adequate electrical stimulation and should be replaced by a more modern machine.

In 1992, we performed a retrospective audit of ECT at our hospital. The audit criterion was that of an induced fit of greater than 25 seconds following electrical stimulation. The machine in use then was an Ectron Duopulse Series 3, which had been regularly serviced by the medical physics department. The case notes of the 73 patients who had received

572