On a final point, we note from Fig. 1 of the paper that the oscilloscope used to monitor the impedence was connected directly to the ECT machine. As oscilloscopes are generally mains powered, this would contravene British safety standards (BS 5724 part I). While the measurement of impedance is important in the scientific study of ECT, it is important for patient safety that this method of monitoring impedance is not employed.

R. McCLELLAND
G. McALLISTER

Queen's University of Belfast
97 Lisburn Road
Belfast BT9 7BL

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SIR: The correction that should be applied to the quoted values for energy produced by the constant voltage machine has already been dealt with (*Journal*, November 1987, **151**, 701).

We were well aware that our oscilloscope did not comply with the British Standard (BS 5724 Part I). This is also the case for microcomputers and video equipment which may also be linked to patient-connected equipment. In these circumstances, and in the case of our study, we utilise a mains isolation transformer which removes the hazard of earth leakage currents. If there is sufficient interest in monitoring routinely the patient impedance then this can be incorporated into ECT machines which comply with the British Safety Standard.

R. RAILTON

Monklands District General Hospital
Monkscourt Avenue
Airdrie ML6 0JS

The Symptoms of Chronic Schizophrenia

SIR: We read the article by Liddle (*Journal*, August 1987, **151**, 145–151) with a sense of *déja vu*. The results of the principal factor analysis are an almost exact replication of our study (Bilder *et al*, 1985) which was not referred to in his report. The two studies together support the validity of three separate phenomenological factors within schizophrenia, and prompts speculation that these factors might show greater concurrent validity *vis à vis* putative pathological processes than has been the case so far for other clinically-based syndromes in use, *viz* the positive and negative syndromes. In this regard we have further evidence supporting the validity of the 'disorganisation syndrome' which we more simply called the 'thought disorder factor' (TDF) (Pandurangi *et al*, 1988). In our study, TDF was significantly correlated with the ventricle-brain ratio (VBR) measured by computerised tomography ($r = -0.37$, $P < 0.03$) but the positive and negative symptoms factors were not. This relation with VBR is opposite to that proposed for the 'negative syndrome' (Liddle's psychomotor poverty syndrome) by Crow *et al* (1982). Moreover, TDF was significantly correlated with language dysfunction ($r = -0.58$, $P < 0.005$), memory dysfunction ($r = -0.61$, $P < 0.005$), and global neuropsychological deficit ($r = -0.41$, $P < 0.05$), while other symptom factors were not correlated with any of the neuropsychological scales. Our studies, together with the studies of formal thought disorder reviewed by Dr Liddle, would support the argument that the TDF (disorganisation syndrome) merits a syndromal status separate from the positive and the negative symptom complexes.

There is another important area of convergence between Dr Liddle's study and ours; namely the loading of both positive and negative formal thought disorders on the same factor. This suggests that investigators who split symptoms of formal thought disorder and assign these to positive and negative syndromes may in fact be introducing 'noise' into their assessments, reducing the chance of observing significant relationships of biological variables with those from the symptom domain.

Even though an ocean of difference in the diagnostic approach to schizophrenia might have separated us in the past, this convergence of findings is reassuring: accurate description of phenomena and appropriate techniques will help us discern meaningful subtypes within the schizophrenic syndrome.

ANAND K. PANDURANGI
Medical College of Virginia
Richmond, VA 23298
USA

ROBERT M. BILDER
Hillside Hospital
Glen Oaks, NY
USA

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Behaviourally disturbed HIV patients

SIR: Davies (*Journal*, April 1988, **152**, 577–578) draws attention to the need to plan for facilities to care for mentally ill patients who have been infected with human immunodeficiency virus (HIV). A serious but not generally recognised problem exists in the UK in determining whether mentally ill patients are or are not HIV positive, as exemplified by the following case report.

Case report: A 52-year-old homosexual man with no previous psychiatric history was urgently admitted to hospital in disturbed condition under Section 135 of the Mental Health Act (1983), after he had behaved in a bizarre manner in his family doctor's surgery and refused repeated attempts to gain access to his home in order to interview him further. His mental state and behaviour were most unusual, being marked by extreme avoidance of all interaction or contact with ward staff and other patients. No history could be obtained from the patient, who simply ran away whenever approached by a member of staff, and flew into a rage when prevented from absconding. When left alone he would spend almost all of his time lying on his bed staring into space. He did not complain of any symptoms, but on one or two occasions he spontaneously shouted that his body was becoming taller, but would not elaborate when questioned. An organic disorder was strongly suspected, and after considerable difficulty a physical examination was performed, which was normal, and blood obtained for routine laboratory tests. These revealed an active syphilitic infection.

Examination of the cerebrospinal fluid was not possible at the time of admission, owing to the patient's mental state, and so a presumptive diagnosis of neurosyphillis was made, and treatment instituted with procaine penicillin (1.2 g daily for 21 days). At the same time antipsychotic drugs were given. These measures resulted in a considerable calming effect, but the patient remained very aloof, continued to strenuously avoid any human interaction, and began to settle into a stereotyped daily routine of wandering the hospital grounds, returning to the ward only at meal times when he insisted on laying the table for the other patients. A trial of intramuscular haloperidol decanoate did not influence his behaviour, but resulted in considerable disturbance and anger whenever the injection was due and even greater withdrawal in-between. Static neurological impairment, particularly of frontal lobe function, was strongly suspected, but could not be confirmed by psychometric testing owing to the patient's refusal to co-operate.

Seven months after admission his behaviour remained unchanged, but it was clear that he was losing weight and he soon developed vomiting. Despite very considerable practical difficulties, he was endoscoped and found to have extensive oesophageal candidiasis. The patient had from admission been considered to be at risk of HIV infection, and appropriate precautions had been observed, but laboratory confirmation of HIV infection had not been obtained as he was considered to be incapable of giving consent. As the emergence of an opportunistic infection strongly suggested AIDS or an AIDS-related condition, it was considered to be important to make a firm diagnosis. Advice was sought from a defence society which stated that without consent it would still be inadmissable to test for HIV.

This has resulted in a position where no firm diagnosis can be reached, and therefore it is unclear whether the patient has a poor prognosis for life and should be treated supportively, or has a static condition which will last many years and should be managed by a rehabilitation programme.

Psychiatric symptoms as a presenting feature of AIDS were first described by Nurnberg *et al* (1984), but it is only more recently that it has become recognised that HIV infections may exert a clinically obvious neurotropic effect before the emergence of symptoms of immunosuppression (Navia *et al*, 1986). It is therefore probable that psychiatrists will see an increasing number of patients with syndromes such as pre-senile dementia and psychotic illnesses due to HIV infection, but without lymphadenopathy, Kaposi's sarcoma or opportunistic infections. In these circumstances the only clue to the diagnosis will be the presence of antibodies to HIV and a history of risk factors. As the neurotropic effects of HIV infection become more widely recognised, it may be arguable that few of those infected are capable of giving their informed consent to testing for antibodies. If this position is accepted it will have seriously adverse effects for the care and management of psychiatrically ill patients suspected of HIV infection.

STEPHEN WOOD
SUSAN COPE
ANDREW HODGKISS
RICHARD O'FLYNN

Guy's Hospital
London Bridge
London SE1 9RT