

insight, I would doubt the wisdom of including compliance in any scale designed to measure insight. I was interested that such a high correlation between insight on the Present State Examination (PSE) scale and compliance was found. My experience of conducting a survey of patients' knowledge of medication on long-stay psychiatric wards suggested that there was little relationship between patients' willingness to comply with medication, and the degree of insight that they displayed as to their need for the medication or their having a psychiatric illness (McPherson *et al*, 1993).

This study, conducted on a long-stay population with mean age 63 years, showed an overall extremely poor awareness of medication and its actions, but a willingness to take medication, which did not correlate with the individual's own views as to whether they had a psychiatric illness or not.

As has previously been observed (McAvoy *et al*, 1989), many patients will comply with treatment while not regarding themselves as ill. This appears to be particularly so in hospitalised patients with chronic psychosis and therefore inclusion of compliance in a measure of insight will lead to erroneously elevated scores in these individuals.

While I would agree wholeheartedly with David *et al* that educating patients about their illness and treatment is a vital part of psychiatric practice and should never be neglected, I do not believe that compliance is, *per se*, an indicator of insight; increasing insight may lead to increased compliance, but compliance does not equate with insight.

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#### **Down's syndrome, longevity, and Alzheimer's disease**

SIR: In reply to my correspondence (*Journal*, November 1992, **161**, 722), Dr Harrison implies that there may be a differential association between the aetiological origin of Down's syndrome (trisomy, translocation, or mosaic form) and any resulting Alzheimer-type pathology; and "this could be tested by a combination of cytogenetics and subsequent neuropathological analysis" (*Journal*, February 1993, **162**, 276). Review of the literature already sheds light on such a provoking idea.

Many individuals with complete trisomy 21 (and therefore triplication of the APP gene) do not develop Alzheimer-type dementia (Wisniewski *et al*, 1985). Although the majority of pathological findings have been in proven cases of complete trisomy 21, cases of Alzheimer-type changes have been described in mosaic forms of Down's syndrome (Whalley, 1982; Sylvester, 1986; Rowe *et al*, 1989), and in individuals with 21/22 translocations (Sylvester, 1986). In such cases, overexpression of the APP gene is unlikely. The role of cytogenetics in the development of dementia in people with Down's syndrome, therefore, remains complex.

The establishment of a national case register of people with translocated and mosaic forms of Down's syndrome is recommended by the author. Subsequent access to a large sample population of the uncommon forms of Down's syndrome would prove invaluable in the future investigation of Alzheimer's disease, both in the general, and Down's syndrome population.

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#### **Association of schizophrenia and Duchenne muscular dystrophy**

SIR: We want to report a case of association of schizophrenia and Duchenne muscular dystrophy (DMD). DMD is a lethal, recessive, X-linked disease leading to a progressive muscle degeneration and wasting: 90% of the patients die before the age of 20 years (Emery, 1987). It is caused by mutations in the dystrophin gene, which codes for a protein localised in skeletal muscle and in the brain, located at Xp21 segment (Hoffman *et al*, 1988). The association of DMD and schizophrenia is apparently rare since we have found only two previous reports (Dubowitz & Crome, 1969; DeLisi & Crow, 1991).

B is a man in his early twenties. He is an isolated case of DMD in the family, currently in a terminal stage. DMD diagnosis was confirmed with DNA analysis, through polymerase chain reaction (PCR) and Southern blot, which revealed an out-of-frame deletion encompassing exons 47 to 52. At the age of 20 years his behaviour changed and he began to say strange things. He believed that he could change radio programmes through telepathy, and would be able to "catch the thoughts of everywhere as if I am a radio". He was convinced that some Masons in the neighbourhood wanted to kill him because he was "the Beast". He said that he "heard" thoughts (voices) inside his head which talked about him and between themselves, and that sometimes he obeyed orders from these voices against his will, for example not watching television. There was no evidence of mental retardation, a common complication in DMD, and no drug abuse. An electroencephalogram and brain computerised tomography scan revealed no abnormalities. There was no history of psychosis among first degree relatives. The psychiatric diagnosis was schizophrenia. The patient refused medication and this was supported by his family. The severity of physical disability probably prevented the patient from having more disturbed behaviour.

There are several reports of the association of schizophrenia with various genetic disorders in the X chromosome: sex chromosome aneuploidies (XXX, XXY, XYY), fragile-X syndrome, and X-linked hereditary nephritis (DeLisi & Crow, 1991). There are also reports of the association of schizophrenia with Becker muscular dystrophy, an allelic form of muscular dystrophy to DMD, with a less severe course (Zatz *et al*, 1991).

Since the genes responsible for the above conditions are located in distant parts of the X-chromosome (Xq27 for fragile-X, Xq21-q24 for hereditary nephritis, and Xq21 for Duchenne and Becker muscular dystrophies), it is possible that there are several genes in the X-chromosome which may increase the susceptibility for schizophrenia. The relevance of such associations awaits further studies.

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## A HUNDRED YEARS AGO

### The opium question in India

SIRS: I was much interested some time since in the discussion in the *Lancet* on the opium question in India. In an experience of twelve years of medical practice in the Punjab I have had opportunities of observing the effects of the opium habit. It seems to me that a great deal more is made of the evil effects of it than is justified by the facts. Amongst the Sikhs, the finest race of men in this province, the habit is, I venture to say, well-nigh universal. Those who do not use the drug are, it might be said, exceptions to the rule. The Sikhs do not use tobacco, and hence perhaps the fact that they more than others indulge in opium, for men will have a stimulant or narcotic of

some kind. It is a very common practice to give it, in the first place, to their infants to keep them from crying at night and disturbing the household. Every father knows only too well what it is to be roused at midnight to pace the floor with a crying child - i.e., if he is a generous husband and does not leave it all to the poor tired wife to do. All such troubles are, at least for the time, evaded by giving the little hopeful an infinitesimal dose of this *prima donna*, the queen of drugs. The future consequences, whatever they may be, do not concern the Sikhs, nor the rest either for the matter of that, for the practice is not confined to the race named. It is not a common failing with any of them to look ahead. That is left to *qismat* (fate), which will settle the future of the child to suit itself