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.

DELISI, L. E. & CROW, T. J. (1991) Sex chromosome anomalies and schizophrenia. *Psychiatric Genetics*, 2, 72-73.

DUBOWITZ, V. & CROME, L. (1969) The central nervous system involvement in Duchenne muscular dystrophy. Brain, 92, 805-808.
EMERY, A. E. H. (1987) Duchenne Muscular Dystrophy. Oxford: Oxford University Press.

HOFFMAN, E. P., FISHBECK, K. H., BROWN, R. H., et al (1988) Characterization of dystrophin in muscle biopsy specimens from patients with Duchenne's and Becker's muscular dystrophy. New England Journal of Medicine, 318, 1363-1368.

ZATZ, M., MELO, M. S., VALLADA, H. P., et al (1991) Association of schizophrenia and Becker muscular dystrophy (BMD): a susceptibility locus for schizophrenia at Xp21 or an effect of the dystrophin gene in the brain? American Journal of Human Genetics, 49(4), 364.

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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

quite independently of any precautions on the part of its parents. As for adults, the habit generally begins with taking the drug, in the first instance, to alleviate some pain or to stop a cold or a cough (the whole race coughs). From two to thirty grains a day are taken. I have met with numerous instances of old men who have taken from twenty to thirty grains a day in two doses; but it is not conducive in any way whatever, as some imagine, to the commission of crime or to violence, or to maltreatment of wives or children, or any of the other little Christian pleasantries that are commonly indulged in by some of our countrymen who drink ardent spirits to excess. One never hears of crime being traced to the use of opium. The same is true of suicide. Opium-eaters here do not cut their throats or jump into wells or shoot themselves. I have been surprised to observe that most of those addicted to the habit, on the other hand, are strong and ablebodied and healthy men, living to the same age, so far as I know, as others. I have met with numerous instances of old men who have taken opium steadily for periods of thirty years and more and who are in every respect as active and industrious as others who have not used it. It must be added, however, that they are for the most part zemindars, or farmers, who live an active out-of-door life, and who subsist very largely on milk. It is not pretended that the use of opium, notwithstanding the above statements, is harmless. Most of those I have met with have complained when questioned of feeling inconvenience from the habit, and I have often been consulted about a cure for it, though rarely with success. It takes effort and courage on the part of the patient as well as medicine to break it off.

I am, Sirs, yours truly,

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Reference

Lancet, 6 May 1893, 1098.

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