

- studies implicate HLA-DQ as a component of genetic susceptibility to type I (insulin dependent) diabetes. *Diabetologia* 1988;31:864-70.
- 21 Jacobs KH, Jenkins D, Mijovic C, et al. An investigation of Japanese subjects maps susceptibility to type I (insulin-dependent) diabetes mellitus close to the DQA1 gene. *Hum Immunol* 1992;33:24-8.
 - 22 Cavan DA, Jacobs KH, Penny MA, et al. Both DQA1 and DQB1 genes are implicated in diabetes mellitus in a British Caucasian population. *Diabetologia* 1993;36:252-7.
 - 23 Jenkins D, Mijovic C, Jacobs KH, et al. Allele specific gene probing supports the DQ molecule as a determinant of inherited susceptibility to type I (insulin-dependent) diabetes mellitus. *Diabetologia* 1991;34:109-13.
 - 24 Anderson S, Bankier AT, Barrell BG, et al. Sequence and organisation of the human mitochondrial genome. *Nature* 1981;290:457-65.
 - 25 Poser CM, Paty DW, Scheinberg L, et al. New diagnostic criteria for multiple sclerosis: guidelines for research protocols. *Ann Neurol* 1983;13:227-31.
 - 26 Thompson EJ, Kaufman P, Shortman RC, Rudge P. Oligoclonal immunoglobulins and plasma cells in spinal fluid of patients with multiple sclerosis. *BMJ* 1979;1:16-7.
 - 27 Kermod AG, Moseley IF, Kendall BE, et al. Magnetic resonance imaging in Leber's optic neuropathy. *J Neurol Neurosurg Psychiatry* 1989;52:671-4.
 - 28 Harding AE, Sweeney MG, Miller DH, et al. Occurrence of a multiple sclerosis-like illness in women who have a Leber's hereditary optic neuropathy mitochondrial DNA mutation. *Brain* 1992;115:979-89.
 - 29 Rizzo JF, Lessell S. Risk of developing multiple sclerosis after uncomplicated optic neuritis: a long-term prospective study. *Neurology* 1988;38:185-90.
 - 30 Filippi M, Horsfield MA, Morrissey SP, et al. Quantitative MRI lesion load predicts the course of clinically isolated syndromes suggestive of multiple sclerosis. *Neurology* 1994;44:635-41.
 - 31 Fazekas F. Magnetic resonance signal abnormalities in asymptomatic individuals: their incidence and functional correlates. *Eur Neurol* 1989;29:164-8.
 - 32 Ferbert A, Busse D, Thron A. Microinfarction in classic migraine? A study with magnetic resonance imaging findings. *Stroke* 1991;22:1010-4.
 - 33 Thorpe JW, Mumford CJ, Compston DAS, et al. The British Isles survey of multiple sclerosis in twins: magnetic resonance imaging. *J Neurol Neurosurg Psychiatry* 1994;57:491-6.
 - 34 Francis DA, Thompson AJ, Brookes P, et al. Multiple sclerosis and HLA: is the susceptibility gene really HLA-DR or DQ? *Hum Immunol* 1991;32:119-24.
 - 35 Kelly MA, Cavan DA, Penny MA, et al. The influence of HLA-DR and -DQ alleles on progression to multiple sclerosis following a clinically isolated syndrome. *Hum Immunol* 1993;37:185-91.

NEUROLOGY IN LITERATURE

Some movement disorders

In previous centuries, patients with movement disorders were often accused of being possessed by the devil. Indeed the unfortunate victims came to believe it themselves, as the example from *Malleus Maleficarum* shows. Could she have had Gilles de la Tourette's syndrome? Some of the witches of Salem, incidentally, from the contemporary accounts available, seem to have had oculogyric crises. The examples from Fielding and Proust can be accepted as focal dystonias although both, one by inference, seem to have recovered. Mr Bates has blepharospasm, perhaps with spasmodic torticollis and spasmodic torticollis is probably the movement disorder being described by Tolstoy. Mr Rottcodd's movements are not accompanied by ataxia and probably represent the association of congenital nystagmus with head oscillation.¹ Hadden's papers are something of a ragbag of conditions, the first of the series having the privilege of following, in that issue of *The Lancet*, the second of David Ferrier's Croonian lectures.

Jacobus Sprenger and Heinrich Kramer, 1486, Malleus Maleficarum

"I cannot help myself at all, for he uses all my limbs and organs, my neck, my tongue, and my lungs, whenever he pleases, causing me to speak or to cry out; and I hear the words as if they were spoken by myself, but I am altogether unable to restrain them; and when I try to engage in prayer he attacks me more violently, thrusting out my tongue."

Henry Fielding, 1742, Joseph Andrews

A man in my circumstances, as he very well knew, had no choice. I accordingly accepted his proposal with his conditions, which were none of the most favourable, and fell to translating with all my might. I had no longer reason to lament the want of business; for he furnished me with so much, that in half a year I almost writ myself blind. I likewise contracted a distemper by my sedentary life, in which no part of my body was exercised but my right arm, which rendered me incapable of writing for a long time.

George Eliot, 1858, Scenes of clerical life

Mr Bates was further distinguished from the common herd by a perpetual blinking of the eyes; and this, together with the red-rose tint of his complexion, and a way he had of hanging his head forward, and rolling it from side to side as he walked, gave him the air of a Bacchus in a blue apron, who, in the present reduced circumstances of Olympus, had taken to the management of his own vines.

Leo Tolstoy, 1877, Anna Karenina (about Nicholas Levin)

But at the same moment he turned to look at the young man and convulsively jerked his head and neck as if his neck tie were strangling him, a movement Levin knew well, . . . "So you see, . . ." Nicholas Levin continued with an effort, wrinkling his brow and twitching.

Marcel Proust, 1923-1927, Remembrance of things past. Volume 3

Morel was suffering at the time from violent cramp in the hand, and found himself obliged to contemplate the possibility of having to give up the violin. (Morel is a violinist—he recovers.)

Mervyn Peake, 1946, Titus Groan

His skull was dark and small like a corroded musket bullet and his eyes behind the gleaming of his glasses were the twin miniatures of his head. All three were constantly on the move as though to make up for the time they spent asleep, the head wobbling in a mechanical way from side to side when Mr Rottcodd walked, and the eyes, as though taking their cue from the parent sphere to which they were attached, peering here, there, and everywhere at nothing in particular.

G D PERKIN
Regional Neurosciences Centre,
Charing Cross Hospital,
London W6 8RF, UK

¹ Hadden WB. On head-nodding and head-jerking in children commonly associated with nystagmus. *Lancet* 1890;i:1293-5, 1349-50, 1416-8.