- Moskowitz C, Friedman J. Validity and reliability of a rating scale for the primary torsion dystonias. *Neurology* 1985;35:73-7.
- 6 Ozelius LJ, Kramer PL, Moskowitz CB, et al. Human gene for torsion dystonia located on chromosome 9q32-34. *Neuron* 1989;2:1427-34.
- 7 Kramer PL, de Leon D, Ozelius LJ, et al. Dystonia gene in Ashkenazi Jewish population is located on chromosome 9q32-34. *Ann Neurol* 1990;27:114-20.
- 8 Kramer P, Heiman G, Gasser T, et al. The DYT1 gene on 9q34 is responsible for most cases of early-onset idiopathic torsion dystonia (ITD) in non-Jews. *Am J Hum Genet* 1994;55:468-75.
- 9 Ozelius LJ, Kramer PL, de Leon D, et al. Strong allelic association between torsion dystonia gene (DYT1) and loci on chromosome 9q34 in Ashkenazi Jews. *Am J Hum Genet* 1992;50:619-28.
- 10 Henske E, Ozelius L, Gusella J, Haines J, Kwiatkowski D. A high resolution linkage map of human 9q34-1. *Genomics* 1993;17:587-91.
- 11 Bressman SB, de Leon D, Brin MF, et al. Idiopathic torsion dystonia among Ashkenazi Jews: evidence for autosomal dominant inheritance. *Ann Neurol* 1989;29:612-20.
- 12 Pauls DL, Korczyn AD. Complex segregation analysis of dystonia pedigrees suggests autosomal dominant inheritance. *Neurology* 1990;40:1107-10.
- 13 Lathrop GM, Lalouel JM. Easy calculations of lod scores and genetic risks on small computers. *Am J Hum Genet* 1984;36:460-65.
- 14 Kwiatkowski DJ, Ozelius L, Kramer PA, et al. Torsion dystonia genes in two populations confined to a small region on chromosome 9q32-34. *Am J Hum Genet* 1991;49:366-71.
- 15 Bressman SB, Hunt AL, Heiman GA, et al. Exclusion of the DYT1 locus in a non-Jewish family with early-onset dystonia. *Mov Dis* 1994;9:626-32.
- 16 Bressman SB, de Leon MS, Kramer PL, et al. Dystonia in Ashkenazi Jews: clinical characterization of a founder mutation. *Ann Neurol* 1994;36:771-7.
- 17 Bressman SB, Heiman GA, Nygaard TG, et al. A study of idiopathic torsion dystonia in a non-Jewish family: evidence for genetic heterogeneity. *Neurology* 1994;44:283-7.
- 18 Warner TT, Fletcher NA, Davis MB, et al. Linkage analysis in British and French families with idiopathic torsion dystonia. *Brain* 1993;116:739-44.
- 19 Wahlström J, Ozelius L, Kramer P, et al. The gene for familial dystonia with myoclonic jerks responsive to alcohol is not located on the distal end of 9q. *Clin Genet* 1994;45:88-92.
- 20 Nygaard T, Wilhelmsen KC, Risch NJ, et al. Linkage mapping of dopa-responsive dystonia (DRD) to chromosome 14q. *Nature Genetics* 1993;5:386-91.

NEUROLOGY IN LITERATURE

Some doctor and patient opinions

Mrs Trundle's physician wisely allows his patient the last word in her management, aware no doubt that any decision can have no adverse effect on the outcome of her illness. Dickens makes an astute comment on the way in which a patient's class and position influences the doctor's use of disease terminology. We have all encountered the type of physician Wilkie Collins describes in *The moonstone*. Somehow, often by a devious route, they arrive at the correct diagnosis.

Arnold Bennett's description of a despondent young doctor could have been written today, showing that intense competition in the professions should not be regarded as a modern phenomenon.

Franklin, in *The horse's mouth*, has a decidedly jaundiced view of the medical profession, which, from his comments, does not seem entirely unreasonable.

Charles Dickens, 1836-7, The Pickwick papers
Hereupon, Mr Trundle called in the doctor, and the doctor said Mrs Trundle ought to know best how she felt herself, to which Mrs Trundle replied that she felt herself quite equal to it, and that she had made up her mind to go; upon which the doctor, who was a wise and discreet doctor, and knew what was good for himself as well as for other people, said that perhaps if Mrs Trundle stopped at home she might hurt herself more by fretting, than by going, so perhaps she had better go.

Charles Dickens, 1841, Barnaby Rudge
"The door will be opened immediately," he said. "There is nobody but a very dilapidated female to perform such offices. You will excuse her infirmities? If she were in a more elevated station of society, she would be gouty. Being but a hewer of wood and drawer of water, she is rheumatic. My dear Haredale, these are natural class distinctions, depend upon it."

Charles Dickens, 1864-5, Our mutual friend
Too late to know for certain, whether injuries received before or after death; one excellent surgical opinion said, before; other excellent surgical opinion said, after.

Wilkie Collins, 1868, The moonstone
In his medical practice he was a more prudent man; picking up his discretion (as his enemies said) by a

kind of instinct, and proving to be generally right where more carefully conducted doctors turned out to be wrong.

Wilkie Collins, 1883, Heart and science
"Let me hear how you like the scientific people at close quarters, and let me give you a useful hint. When you meet in society with a particularly positive man, who looks as if he was sitting for his photograph, you may safely set that man down as a professor."

Arnold Bennett, 1910, Clayhanger
Charlie was about to reply in accents of disdain: "Not me!" but his natural politeness stayed his tongue. "I hardly think so", he said. "Too much competition here. So there is everywhere, for the matter of that." The disillusion of the young doctor were already upon Charlie. And yet people may be found who will assert that in those days there was no competition, that competition has been invented during the past ten years.

Arnold Bennett, 1912, Buried alive
On the other side of the door, dressed in frock coat and silk hat, there stood hesitating a tall, thin, weary man who had been afoot for exactly twenty hours, in pursuit of his usual business of curing imaginary ailments by means of medicine and suggestion, and leaving real ailments to nature aided by coloured water.

Joyce Cary, 1944, The horse's mouth
"It's only that I never could stand doctors. Well, they've got to find something wrong haven't they? It's only professional. But there was my friend Mrs Blonberg, just opposite—she used to have a little pain—I'm sure it was no more than I've had myself and thought nothing of, and she went to the doctor, and the next thing she was in hospital and they cut her up on Monday and we buried her yesterday."

"Been to the doctor?"
"Doctor? You can have doctors. What do they know? What did they do for your rupture?" "Well, they say I'm an exceptional case." "So am I. That's what they always say. That's what you'll die of when your guts get another crick in them. That's what my ma died of. She was an exceptional case. Nobody's never seen anything like it before. Ya. Doctors."

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