Case histories

Parkinson's disease

Had James Parkinson never written An Essay on the Shaking Palsy, he might now be remembered as an adventurous activist in an age of turmoil. Born in London, in 1755, he belonged to a generation whose political consciousness was shaped by the French and American Revolutions and the writings of firebrand democrats like Thomas Paine. When some of his colleagues in the London Corresponding Society were charged with treason, Parkinson stood up for them in the witness box, and, in 1796, he was suspected of involvement in the Popgun Plot—an alleged conspiracy to assassinate George III with a poisoned dart from an airgun.

During the late 1790s Parkinson, like so many of his contemporaries, lost his appetite for revolutionary politics. He had followed his father into practice as a surgeon-apothecary, and spent the rest of his career ministering to patients in London's East End district of Hoxton. Parkinson's publications reflect his polymathic late-Enlightenment enthusiasms—gout, family health, medical education, fossils, mental health care. In 1817, he wrote a short treatise on a condition he had observed among six of his patients and neighbours:

"Involuntary tremulous motion, with lessened muscular power, in parts not in action and even when supported; with a propensity to bend the trunk forward, and to pass from a walking to a running pace: the senses and intellects being uninjured."

Parkinson called this disease paralysis agitans, the shaking palsy, arguing that it was distinct from the tremors caused by epilepsy, alcoholism, or stroke. He observed that it came on gradually, beginning in the hands and arms before moving through the rest of the body, and noted the weariness, inconvenience, and anguish it provoked in its victims. His framing of the disease captures the great transformations through which European medicine was passing in the early 19th century. Reasoning from its symptoms, he concluded that paralysis agitans was caused by lesions in the cervical spinal cord, and looked (unsuccessfully) for post-mortem evidence to confirm this-almost a textbook example of new anatomo-localist pathological theory in action. But he also sought precedents in the work of the Roman physician Galen, and recommended treatments such as bleeding and blistering to draw inflammation away from the neck.

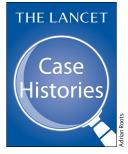
The route from paralysis agitans to Parkinson's disease shows how complex and chancy the matter of naming diseases could be. English doctors took up the Latin name, but it was the leading French neurologist Jean-Martin Charcot who first called the condition maladie de Parkinson. He pointed out that paralysis agitans was in one sense self-contradictory, and argued that an eponym would acknowledge Parkinson's clear and spare delineation

of the condition. (Some of Charcot's colleagues seem to have struggled with this English surname, and there is more than one French reference to *maladie de Patterson*.) Charcot's coinage gradually caught on in the English-speaking world, and in 1912 a short book on Parkinson by the American endocrinologist Leonard Rowntree, which included a reprint of *An Essay on the Shaking Palsy*, brought the disease and its eponym to wider attention.

Just as Parkinson's name achieved international currency, his views on the pathology of his eponymous disease were being discredited. Late 19th-century histological studies had linked the disease with changes in the substantia nigra of the midbrain, and the aftermath of the encephalitis lethargica epidemic of the 1910s and 1920s confirmed this view. This mysterious disease, first identified by the Viennese neurologist Baron Constantin von Economo in 1917, left its victims with a bewildering range of chronic neurological symptoms, including post-encephalitic parkinsonism. During the early 1960s researchers began experiments of small doses of levodopa in patients with post-encephalitic parkinsonism, and in Awakenings, published in 1973, Oliver Sacks described the "unlocking" of such patients at the Beth Abraham Hospital in New York, USA, with larger doses of the drug.

In the second half of the 20th century, the disease became the subject of a major international research drive. Since 1969 the Parkinson's Disease Society (now Parkinson's UK), founded by Mali Jenkins, who had cared for her sister Sarah as she struggled with the illness, has worked to gain funding and political support, and has provided a point of connection for doctors, patients, carers, and researchers. Much promising research has emerged from studies using the Parkinson's UK Brain Bank, established in 1984—a lineage of investigation that goes back to an East End physician watching people walking in the street.





See Comment page 211

Further reading

Parkinson J. An essay on the shaking palsy. London: Whittingham and Rowland for Sherwood, Neely, and Jones, 1817

Morris AD. James Parkinson: his life and times. Clifford Rose F, ed. Boston: Birkhauser, 1989

Vilensky JA, ed. Encephalitis lethargica: during and after the epidemic. Oxford: Oxford University Press, 2011

