History of Neurology: Parkinson’s Disease Before James Parkinson

Introduction
Every neurologist knows that James Parkinson (1755-1824) published An Essay on the Shaking Palsy in 1817. In this work Parkinson described six personally observed cases, although three were only seen in passing, what Professor Andrew Lees has evocatively termed ‘street watch methodology’, an experience which may be familiar to many neurologists even today. The eponym of Parkinson’s disease was promoted later in the nineteenth century (1877) by Jean-Martin Charcot.1

A question long asked is whether Parkinson was describing a new disease in 1817, or whether he was simply the first to crystallise the clinical gestalt which we now recognise as “Parkinson’s disease” (PD).

Parkinson and his pamphlet
Like authors before and since, Parkinson attempted a review of the previous literature in his account of the shaking palsy, mentioning the works of authors dating from classical antiquity (Galen) up until the eighteenth century (e.g. Gerard van Swieten, Hieronymus David Gaubius, William Cullen). Two authors whose works seem to have been of particular significance to Parkinson were Sylvius and Boissier de Sauvages.

Franciscus Sylvius de la Boë (1614-1672) was a Dutch physician and scientist who made a distinction between ‘those tremors which are produced by attempts at voluntary motion, and those which occur whilst the body is at rest’; the latter he termed Tremor coactus. This distinction still forms an important component of clinical history taking in the assessment of tremor disorders. Galen and van Swieten had also distinguished between rest and action tremor.

François Boissier de Sauvages de la Croix (1706-1767) was a French physician and botanist. His interest for Parkinson was his description of Sceletybe festinans, the phenomenon whereby “Patients, whilst wishing to walk in the ordinary mode, are forced to run”. Festination or festinant gait is a reflection of the postural instability which is one of the cardinal features of PD.

Whether these authors were describing PD is not clear, since they each mentioned only one aspect of the clinical phenotype. In recent years, an account by the Hungarian physician Ferenc Papai Páriz (1649-1716) has been identified, the Pax cosmos of 1690, in which all four cardinal signs of PD are described.1 Parkinson does not reference this work, and it would seem highly unlikely that he knew of it, since it was written in Hungarian.

Parkinson’s disease before Parkinson?
Appeal to the historical record may help to answer the question as to whether cases conforming to Parkinson’s description occurred before his pamphlet. In this context it should be remembered that “shaking palsy” might have been used in ways other than that denoted by Parkinson. For example, Parkinson’s almost exact contemporary Caleb Hillier Parry (1755-1822), based in rural Bath rather than cosmopolitan and industrial London, described in 1815 the “shaking palsy” in which the ‘head and limbs shake, more especially on any muscular exertion’, a description perhaps more suggestive of essential tremor than Parkinson’s disease.

The surgeon and anatomist John Hunter (1728-1793) has been suggested to have described a case of PD in his Croonian Lecture of 1776:

“...Lord L’s hands are almost perpetually in motion,...When he is asleep his hands etc are perfectly at rest, but when he wakes, in a little time they begin to move.”

The French painter Nicolas Poussin (1594-1665) was from 1650 troubled with worsening tremor. A sophisticated tremor analysis of lines in selected of his works produced between the 1620s and 1660s has concluded that they show a progressive decrease in movement velocity, which would be consistent with a diagnosis of PD.

Leonardo da Vinci (1452-1517) may also have described a case of PD. In a manuscript now in Windsor Castle he wrote:

“... in paralytics... who move their trembling limbs such as the head or the hands without permission of the soul; which soul with all its power cannot prevent these limbs from trembling.”

Calne and colleagues suggest that the reference to “paralytics” indicates a difficulty with voluntary movement which might now be interpreted as hypokinesia.

Non-medical narratives
Non-medical narratives may sometimes contain descriptions of clinical disorders. There are several examples of novels which feature characters with PD, most published in recent years.14 Charles Dickens (1812-1870) may have described progressive supranuclear palsy in 1857, over a century before the definitive clinical account of Steele, Richardson and Olszewski (1964). Dickens may also have described Parkinson’s disease in his characterisation of Frederick Dorrit in the novel Little Dorrit (1857). He “stooped a good deal”, turned round in a “slow stiff, stooping manner”, and spoke with a “weak and quavering voice”, which might be indicative of the typical posture of PD and, possibly, the hypophonic voice.11

William Shakespeare (1564-1616) is credited by one influential literary critic, Howard Bloom, with the “invention of the human”, so it is perhaps not...
surprising that his plays and poetry are claimed to describe various clinical disorders including paralysis, stroke, sleep disturbances, epilepsy, dementia, and the neurology of syphilis. Claims for PD have also been made, for example in this quote from Troilus and Cressida (I.i:172-5), wherein Ulysses is describing the ageing Achilles:

And then, forsooth, the faint defects of age
Must be the scene of mirth; to cough and spit
And with a palsy fumbling on his gorget,
Shake in and out the rivet.
The gorget is a piece of armour protecting the throat.

Conclusion
There are occasional accounts dating prior to 1817, in both medical and literary sources, which are suggestive of PD. The relative paucity of these reports has been ascribed to the fact that the disease typically occurs in those aged greater than the prevailing life expectancy of earlier historical periods, and that the symptoms were not easily distinguished from “normal senescence.” This echoes Parkinson’s own comments in 1817 to the effect that remedies were seldom sought for the symptoms and signs he was describing, which may also explain why three of his cases were seen only in passing on the street.

REFERENCES