

History of Neurology: Parkinson's Disease Before James Parkinson



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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.²

François Boissier de Sauvages de la Croix (1706-1767) was a French physician and botanist. His interest for Parkinson was his description of *Scerotyrbæ 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 Pápai Páriz (1649-1716) has been identified, the *Pax corporis* of 1690, in which all four cardinal signs of PD are described.³ 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.⁴

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.”⁵

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.⁶

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.”⁵

Calne and colleagues suggest that the reference to “paralytics” indicates a difficulty with voluntary movement⁵ 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.^{7,8} 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).⁹ 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.¹⁰

William Shakespeare (1564-1616) is credited by one influential literary critic, Howard Bloom, with the “invention of the human”,¹¹ 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.¹² Claims for PD have also been made,¹³ for example in this quote from *Troilus and Cressida* (I.iii: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”.⁵ 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. ♦

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UKABIF LAUNCHES MANIFESTO TO IMPROVE SERVICES FOR CHILDREN AND YOUNG PEOPLE WITH ACQUIRED BRAIN INJURY

“There is a general lack of understanding about the effects of Acquired Brain Injury (ABI) in children and young people, and a lack of awareness that over time ABI is a developing disability. Current care planning and service provision is woefully inadequate” said Professor Michael Barnes, Chair of the United Kingdom Acquired Brain Injury Forum (UKABIF) at the November launch of the UKABIF Manifesto ‘Life After Brain Injury? A Way Forward’.

The charity is calling for a National Audit of brain injury incidence and rehabilitation not only for children and young people, but also for adults. As Professor Barnes pointed out: “How can you plan rehabilitation services if you don’t have accurate data about the incidence and prevalence of ABI?”

This is the second Manifesto to be launched by UKABIF as part of its Campaign to highlight the need for improvements in the provision of services for people with ABI. The Manifesto outlines the importance of considering ABI as a chronic health condition with associated ongoing symptoms and emphasises that current care planning and service provision is inadequate. Education services also play a crucial role in the care pathway but personnel have limited knowledge of ABI. In addition practical, easy access to information is required for children, young people, their families and all professionals involved in their care and support.

Speaking at the launch Maureen Le Marinel, President of UNISON, Britain’s biggest trade union with members in the public services and the essential utilities, talked about Katie, her niece, who was knocked down by a car and suffered an ABI. “UNISON is supporting the UKABIF Campaign because I’ve seen at first hand just how devastating an ABI in a young person can be. Although our NHS was brilliant there was a lack of information, service integration and co-ordination. And although the whole family is pivotal in the rehabilitation of the child they are often not considered such a key part of the process”.

Lord Ramsbotham, Chair of the Criminal Justice and Acquired Brain Injury Interest Group, commented that there can be major consequences if children and young people are not monitored long-term – a study published in 2010 highlighted that almost 50% of young male offenders had a traumatic brain injury at some stage in their lives; a significantly higher prevalence than that expected in society as a whole. “ABI must be managed early to avoid long-term disability and monitored long-term for problems arising post-injury” said Lord Ramsbotham.

“ABI is a leading cause of death and disability” concluded Professor Barnes. “Our Manifesto presents four key recommendations which we hope health professionals, purchasers and providers of services will support and implement. By working together we can improve services and ensure the best possible outcomes.”