European Neurology

Eur Neurol 2009;61:119–123 DOI: <u>10.1159/000180315</u> Received: January 23, 2008 Accepted: January 28, 2008 Published online: December 9, 2008

# Sir Samuel Wilks (1824–1911): 'The Most Philosophical of English Physicians'

# J.M.S. Pearce

Emeritus Consultant Neurologist, Department of Neurology, Hull Royal Infirmary, Hull, UK

#### **Key Words**

Samuel Wilks • Guy's Hospital • Clinicopathological correlations

#### Abstract

This paper retells some of the achievements and personal attributes of Sir Samuel Wilks, one of the great Guy's Hospital physicians and neurologists of the second half of the 19th century. He was a fellow of the Royal Society, president of the Royal College of Physicians, and physician extraordinary to Queen Victoria. A prolific author and original observer of clinical and pathological diseases, he was renowned for his *Lectures on Pathological Anatomy*, and his original descriptions of syphilis, epilepsy, inflammatory bowel diseases, and myasthenia gravis.

In the 19th century, Guy's Hospital could boast many great physicians whose names are still frequently recalled in medical texts. Richard Bright (1789–1858), Thomas Addison (1793–1860) [1], and Thomas Hodgkin (1798– 1866) had their names and clinical discoveries perpetuated in familiar eponyms. They were contemporaries for 12 years from 1825 to 1837, and became known as 'the three great men of Guy's'. In their wake, less famed, but of comparable stature, was Samuel Wilks.

All four Guy's physicians excelled in a wide range of general medical illnesses, but Bright and Wilks, like Osler, also concerned themselves with diseases of the nervous system.

# Samuel Wilks, MD, Hon LLD Edin, FRCP, FRS

Wilks (fig. 1) was born on June 2, 1824, at Camberwell, London, second son of Joseph Barber Wilks, cashier at the East India House.<sup>1</sup> After attending Aldenham School and University College School, he was apprenticed to Richard Prior, a doctor in Newington, then in 1842, he began his training at Guy's Hospital where he graduated MB in 1848 and held resident training posts. He obtained the MD with gold medal in 1850. In 1853, he became physician to the Surrey Dispensary, where he was able to confirm the separate identity of typhoid and typhus fevers, newly established by Jenner; he also held an early appointment at the Infirmary for Children, Waterloo. In 1851, he passed the MRCP examination and in 1856 was elected FRCP. In the same year, he became assistant physician to Guy's, and succeeded Sir William Withey Gull (1816-1890) [2] as full consulting physician in 1867. He was curator of the Guy's Museum and, successively, demonstrator of morbid anatomy, lecturer on pathology and lecturer in medicine. He was to become a highly successful physician, president of the Royal College of Physicians in 1869, and an influential, intellectual and accomplished writer. He continually stressed the importance of pathology, publishing many contributions at the requests of his acolytes in Guy's Hospital Reports, which he edited from 1854 to 1865.

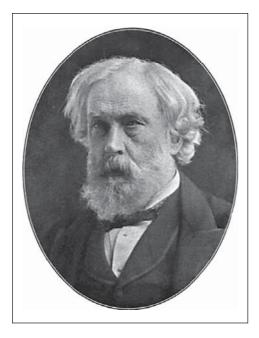
<sup>1</sup> Headquarters of The Honourable East India Company, given a Royal Charter by Queen Elizabeth 1st in 1600. Sited at Leadenhall Street, London, it was rebuilt in 1799–1800, and demolished in 1929.

J.M.S. Pearce 304 Beverley Road Anlaby, East Yorks HU10 7BG (UK)

KARGER

Fax +41 61 306 12 34 E-Mail karger@karger.ch www.karger.com © 2008 S. Karger AG, Basel 0014-3022/09/0612-0119\$26.00/0

Accessible online at: www.karger.com/ene



**Fig. 1.** Sir Samuel Wilks, MD, FRS (frontispiece of his *Biographical Recollections*).

Based on more than 4,500 post-mortems, he published his classical *Lectures on Pathological Anatomy* in 1859 [3], which with his *Lectures on Pathology* [4] forged the foundation of scientific pathology in England and profoundly influenced medical thinking. It was through his recognition of the importance of pathology, shown in his contributions to *Guy's Hospital Reports*, and by the publication of *Lectures on Pathological Anatomy*, that Wilks first made his name. The Lectures had two subsequent editions, in 1875 and 1889; Walter Moxon collaborated in the first. His *Lectures on the Specific Fevers and on Diseases of the Chest* (1874) and *Lectures on Diseases of the Nervous System* [5] were likewise highly valued.

In 1865, he replaced his pathology lectures by giving systematic lectures on medicine for the next 18 years, until he retired in 1885.

#### **Clinicopathological Advances**

Wilks' approach to medicine at Guy's changed the routine practices. He insisted on performing autopsies in all patients when possible; he assiduously tried to correlate clinical findings with the pathology, which he personally observed. Consequently many invaluable clinicopathological correlations were established and published, attracting large numbers of students from many medical institutions. Though his neurological descriptions and original ideas were many, his investigation of general medical diseases was equally remarkable. These will be briefly outlined, but each merits closer examination of his original work.

#### **General Medical Contributions**

## Lymphoma

Wilks rediscovered generalised lymphadenopathy with enlarged spleen, confirming Hodgkin's earlier but neglected account in 1856 [6]. He had investigated many more cases than Hodgkin and provided 'a more perfect description' [24], but, acknowledging Hodgkin's priority, he proposed the eponym in 1865. Similarly, he clarified much of the confusion about the classification of Bright's disease, showing two distinct varieties. After the death of Addison in 1860, he examined specimens from many British hospitals to appraise critically the diagnosis of Addison's disease and thereby collected a large case archive. Far from duplicating the studies of his colleagues he advanced them, taking great pains to give credit to the originality of the works of Addison, Bright, Hodgkin and others.

# Inflammatory Bowel Disease

In 1859, he suggested that idiopathic colitis should be considered in a different category from specific epidemic dysentery [7]. At the same time, he described a post-mortem of a woman:

'In the small intestine nothing remarkable was observed until the lower end of the ileum was reached, when at about three feet from its termination in the caecum, the mucous membrane commenced to exhibit an inflammatory response. In the caecum, inflammation of the most acute and violent character was observed ...'

With Moxon [8] (who had expounded the pathology of multiple sclerosis) he stated:

'In fatal cases of this kind, we find the colon extensively disorganized; the interior presenting a most irregular surface, from the form of the ulcers; these may be isolated, and scattered over the membrane, but more usually they are united, and form a continuous serpentine ulceration throughout the larger bowel ... [9].'

These accounts are clearly those of inflammatory bowel disease 73 years before Crohn's paper of 1932 [10].

### Bacterial Endocarditis

Wilks gave one of the first descriptions of bacterial endocarditis in a classical paper in 1870 [11] with characteristically generous remarks about Kirkes' work on the same disease.

#### Syphilis

In a long and detailed report, Wilks described a detailed investigation of syphilis concerning his original identification of the visceral gummatous lesions in 1863 [12]; though controversial, this 'outstanding work' was influential in his being elected FRS in 1870.

#### **Neurological Contributions**

#### Alcoholic Paraplegia and Psychosis

In 1868, Wilks described the features of alcoholic polyneuritis, then named alcoholic paraplegia, though it was thought at the time that the signs derived from the cord [13]. In the same paper, we can recognise the clouding of consciousness, confusion and memory impairment (later named Korsakoff's psychosis) [7].

#### Myasthenia

He described in *Guy's Hospital Reports* (1877) the first probable case of myasthenia gravis, in a woman, initially thought to be hysterical, with generalised weakness, squint and dysphagia [14]. No clear description of fatigability is made, though this had been observed by Willis [15].

#### Epilepsy

Against the generally held opinions of the time that epilepsy was generated in the medulla, Wilks believed that epilepsy arose from diseases of the cerebral cortex. Gowers [16] noted:

'The teaching of pathology is, as Wilks long ago insisted, that epileptiform convulsions have, in most cases, their origin at the surface of the brain.'

Wilks' part in the understanding of epileptic phenomena will be considered elsewhere [17]. Sir Charles Locock had introduced bromides in the treatment of epilepsy on May 11, 1857. Wilks was quick to use bromides and Hughlings Jackson in an early paper on epilepsy commented on 'their use as suggested by Wilks in 1859'.

#### Migraine

Wilks himself suffered from migraine and provided a clinical account [18]. He considered the mechanisms in his *Lectures on Diseases of the Nervous System* [5]. Like Mollendorf he noted that pressure or a cold application over the throbbing painful scalp afforded brief relief. This might have suggested a vascular basis [19] to him, but with prescience he commented that the pain was thought to arise in the dura mater and the branches of the fifth cranial nerve, which perhaps implies, he considered, a neural origin. Therapeutically, he commended the use of antipyrine (phenazone, pyrazoline), an effective but toxic anti-inflammatory analgesic.

#### **Other Publications**

His many publications included reports of multiple sclerosis (with Walter Moxon) [5]. He wrote a classic paper on Paget's disease of bone in 1869 in which he described osteoporosis, or spongy hypertrophy of the bones; the autopsy in this case (with Goodhart) was probably the first on record [20] – 7 years before Paget's paper. He wrote of lineae atrophicae and migraine, and instructive essays on 'How the blind dream' [21], 'On the pupil in emotional states' [22], and 'On falling' [23].

His colleagues, in 1885, established the *Samuel Wilks Fifteen Club*, an erudite dining club confined to 15 physicians, which continued long after his death till May 27, 1926.

With G.T. Bettany he wrote *A Biographical History of Guy's Hospital*, described in *Munk's Roll* [23] below.

#### Honours

Wilks was elected FRS on June 2, 1870, and LLD Edinburgh in 1884. He practised at 74 Grosvenor Street, London, until 1901 and was a generous host to numerous dignitaries in medicine and the arts. He was elected president of the Pathological Society from 1881 to 1883 and was a member of the Senate of London University. The year 1896 saw his election as president of the Royal College of Physicians for 3 years, having been Harveian orator in 1879, and a past censor. He was awarded the College's Moxon Medal in 1897, and in the same year he became baronet and was appointed a physician extraordinary to Queen Victoria [24].

Sir Samuel Wilks (1824-1911)

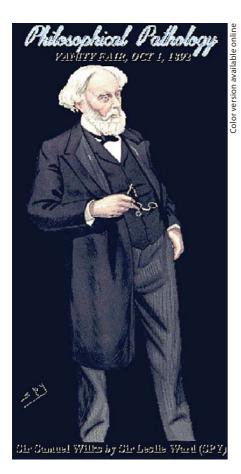


Fig. 2. Sir Samuel Wilks, 'Philosophical Pathology', Spy print, 1892.

#### Wilks, the Man

A popular, esteemed man of profound wisdom, humanity, wit, and above all scientific integrity, G.H. Brown in *Munk's Roll* [25] describes him as follows:

'A general physician of high ability and remarkable powers of observation, and the fact that his practice was not of the fashionable kind was no doubt due to his habit of speaking his mind. Individuality and independence, tempered by a whimsical sense of

#### References

humour, were the marks of his character. His teaching, with its breadth of view, was suited more to the thoughtful senior student than to the uncomprehending beginner. With G.T. Bettany he wrote *A Biographical History of Guy's Hospital* (1892), which showed an uncommon concern for the truth, avoiding the adulatory style of contemporary obituaries which once prompted him to remark sardonically, "I wonder if any medical man ever died who was not possessed of all the virtues". His own *Biographical Reminiscences* were published in his last year [26]. Wilks himself was well informed on all matters scientific, literary and political, and his abounding interest in every aspect of life remained alive in old age.'

This portrayal by *Spy* (fig. 2) is confirmed in the caption of his 'Vanity Fair' cartoon (1892):

'He has indeed achieved every medical honour except that of President of the Royal College of Physicians.<sup>2</sup>

He is a rather rugged person, who has written and spoken much that is wise on Pathological Anatomy, on the Nervous System, on Alcoholism, and on Vivisection. He has introduced more than one new drug, and he is a devoted worshipper of Science; which is, in his belief, the mistress of Truth. He is a broad-minded, sympathetic man, who is more in agreement with Mr. Huxley than with Mr. Gladstone; and he has just completed a biographical history of Guy's Hospital. He is an upholder of the corporate system of hospitals, but he is no great believer in the modern specialist. Yet he is an abundant talker out of the fullness of the wisdom that is gained of experience; and he has done much to rid ladies of sick-headache.

He is a blue-eyed kindly-looking man, whom The Times once called "the most philosophical of English physicians." He thinks that the most wonderful thing in the world is a woman's nervous system.'

In 1854, he married Elizabeth Anne, widow of Richard Prior, MRCS, to whom he had been apprenticed; they had no children. His later years were marred by illness. Appendicitis and prostatic disease necessitated surgery; he later suffered a stroke and terminally paraplegia, but remained mentally active and acute. Cared for by his stepdaughter till her death, and by his stepson, he died aged 88 at home, 8 Prince Arthur Road, Hampstead, surrounded by his books, on November 8, 1911 [27].

<sup>2</sup> This he achieved in 1896.

- 1 Pearce JMS: Thomas Addison (1793–1860). J R Soc Med 2004;97:297–300.
- 2 Pearce JMS: Sir William Withey Gull (1816– 1890). Eur Neurol 2006;55:53–56.
- 3 Wilks S; in: Lectures on Pathological Anatomy Delivered at Guy's Hospital during the Summer Sessions 1857–1858, ed 3. London, Longman, 1889, pp 124–163.
- 4 Wilks S: Lectures on Pathology Delivered at the London Hospital. Henry Gawen Sutton. Paul ME (ed). London, Churchill, 1891.
- 5 Wilks S: Lectures on Diseases of the Nervous System Delivered at Guy's Hospital. London, Churchill, 1878.

- 6 Wilks S: Case of a peculiar enlargement of the lymphatic glands frequently associated with disease of the spleen. Guys Hosp Rep 1856;2(ser 3):114–132 and 1865;11:56–67.
- 7 Wilks S: Morbid appearances in the intestine of Miss Bankes. Lond Med Gaz 1859;2:264– 265.
- 8 Pearce JMS: Some British contributions to the history of multiple sclerosis. J Neurol Neurosurg Psychiatry 1989;52:303.
- 9 Wilks S, Moxon W: Lectures on Pathological Anatomy, ed 2. Philadelphia, Lindsay and Blakiston, 1875, pp 408-409.
- 10 Banerjee AK: Sir Samuel Wilks: a founding father of clinical science. J R Soc Med 1991; 84:44–45.
- Wilks S: Capillary embolism or arterial pyaemia. Guys Hosp Rep 1870;15(ser 3):29–35. Reproduced in: Major RH: Classic Descriptions of Disease, ed 3. Springfield, Thomas, 1965, pp 467–471.

- 12 Wilks S: On the syphilitic affections of the internal organs. Guys Hosp Rep 1863;24:1-63.
- 13 Wilks S: Drunkard's or alcoholic paraplegia. Med Times Gaz 1868;2:467–472.
- 14 Wilks S: On cerebritis, hysteria and bulbar paralysis, as illustrative of arrest of function of the cerebrospinal centres. Guys Hosp Rep 1877;22:7–55.
- 15 Willis T: De anima brutorum, quae hominis vitalis ac sentitiva est: exercitationes duae. Davis, Oxon, 1672, pp 404–406.
- 16 Gowers WR: Epilepsy and Other Chronic Convulsive Diseases: Their Causes, Symptoms and Treatment. London, William Wood, 1885, pp 167–175.
- Pearce JMS: Sir Samuel Wilks (1824–1911): On epilepsy. Eur Neurol 2009;61:124–127.
- 18 Wilks S: On sick-headache. Br Med J 1872;1: 8–9.
- Pearce JMS: Latham and the vasomotor theory of migraine. Semin Neurol 2006;26:271– 275.

- 20 Lewin P: Osteitis deformans (Paget's disease), with a report of three cases. J Bone Joint Surg Am 1922;4:45–67.
- 21 Wilks S: How the blind dream. Brain 1885;8: 272–273.
- 22 Wilks S: On the pupil in emotional states. Brain 1883;6:1-6.
- 23 Wilks S: On falling. Brain 1886;9:207-217.
- 24 Hale-White W: Great Doctors of the Nineteenth Century. London, Arnold, 1935, pp 227–246.
- 25 Brown GH: Munk's Roll. Lives of the Fellows of the Royal College of Physicians of London. London, Royal College of Physicians of London, 1955, vol 4: 1826–1925, p 86.
- 26 Wilks S: Biographical Reminiscences of Sir Samuel Wilks. London, Alard, 1911. For full bibliography see: Guy's Hospital Gazette, Nov 25, 1911.
- 27 Sir Samuel Wilks, Obituary. Times, Nov 9, 1911.