

# Sir William Gull: distinguished physician

The first half of the 19th century witnessed a remarkable trio of physician-pathologists at Guy's Hospital whose names are remembered eponymously to this day. They were Richard Bright (1789–1858), Thomas Addison (1793–1860) and Thomas Hodgkin (1798–1866). Vying with them, a little later in years and less well known today, was another Guy's physician, Sir William Withey Gull, who was born 200 years ago, on the last day of December 1816. He made a number of important original clinical observations, which included the first descriptions of myxoedema, anorexia nervosa and locomotor ataxia, which he identified microscopically to be the result of disease of the dorsal columns of the spinal cord.

William Gull was born in Colchester, the eighth of ten children and the son of a local barge and wharf owner. His father died of cholera when William was 10 years of age, leaving the boy's mother to bring up the large family. After attending local schools, at the age of 17 years William became an assistant school master, teaching himself Greek and studying botany.

Gull now decided he would like to become a doctor, a career which seemed an impossible dream because of his lack of money. The local rector mentioned Gull to the rector's uncle, Benjamin Harrison, the treasurer of Guy's Hospital and the two met. The same gift for seeing merit which had made Harrison help both Richard Bright and Thomas Addison in their early careers now made him offer Gull a studentship at Guy's, with a stipend of £50 a year and two rooms at the hospital. Young Gull took his MB (Bachelor of Medicine) in 1841 with honours in four subjects, having carried off many of the student prizes, and obtained his MD (Doctor of Medicine) in 1846 with gold medal.

Having qualified, Gull taught *materia medica* at the Medical School, was appointed medical tutor and was put in charge of the ward for lunatics; he taught physiology and comparative anatomy and stood in for the more senior medical staff at Guy's. In 1848 Gull was elected FRCP (Fellow of the Royal College of Physicians) and 3 years later was appointed assistant physician at Guy's, being promoted to full physician in 1856. He retired from this post in 1865, when he resigned as a result of the demands of his enormous private practice.

Gull never published a book. His academic reputation was based on his numerous journal publications (many of them with co-authors), on presentations at medical society meetings and on his popular teaching rounds. He had a vast clinical experience, aided by a marvellous retentive memory. His examination of the patient was thorough and nothing seemed to escape him.

He refused to draw conclusions from insufficient data and never feared to say that he did not know. His scientific mind made him protest loudly against the custom (which, I must add, prevails even into the 21st century!) of giving drugs without any evidence of their benefit. He argued against the unquestioning faith of the medical profession in the customs of bleeding, blistering and purging. However, when appropriate he would use the available effective drugs – mercury, opium, quinine and digitalis. After retirement he said that he was thankful for 'disabusing the public of the belief that doctoring consists of drenching them with nauseous drugs'.

Turning now to Gull's original contributions; in 1874 he read a paper to the Clinical Society entitled 'On a cretinoid state supervening in adult life in women'. This was the first account of the condition now termed myxoedema. Five patients were described in a perfect account of a hitherto unknown disease. None of the cases were fatal so no pathology could be recorded and Gull states: 'from the folds of fat around the

neck, I am unable to state what the exact condition of it [i.e. the thyroid gland] was'.

In 1877 Gull presented a short paper, again to the Clinical Society, of a condition which he named 'anorexia nervosa', before which many young women had undergone unhelpful treatment for this still puzzling syndrome.

Gull was especially interested in diseases of the spinal cord. Three papers on paraplegia appear in the Guy's Hospital Reports of 1856, '58 and '61. He stressed that symptoms depend on the position of the lesion in the cord and that this requires its microscopic examination. It was Gull who described disease of the posterior columns of the cord in association with the symptoms of what was then termed locomotor ataxia, now termed *tabes dorsalis*.

In one patient, a man aged 28 years, the spinal cord was normal to inspection by the naked eye but microscopic study revealed that 'the posterior columns were atrophied throughout their entire length'. He illustrated this with an excellent plate.

Surely all three of these original clinical observations deserve eponymous recognition!

Gull had an enormous medical practice, from his indigent patients at Guy's Hospital to the country's leaders. In 1871 he attended Edward, the Prince of Wales, at Sandringham, suffering from a severe attack of typhoid, the disease which had killed his father, Prince Albert. After Edward's recovery, Gull was created a baronet. The following year, Gull was the physician caring for the exiled Emperor Napoleon III, living in Chislehurst and suffering the agonies of a bladder stone. He was operated upon by Sir Henry Thompson, 'the most eminent lithotomist of the day', but died shortly afterwards of uraemia. In the autumn of 1887, Gull suffered a stroke while on holiday in Scotland and retired from practice. He died of a further attack at his home in London on 29 January 1890. Truly a remarkable clinician. **BJHM**

*Conflict of interest: none.*

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