

Sir James Paget: surgeon, teacher and clinicopathological observer

Sir James Paget was one of the great British surgeons of the 19th century, whose name is perpetuated in a number of eponyms, most notably Paget's disease of the bone. This year we celebrate the 200th anniversary of his birth, on 11 January 1814, in Great Yarmouth, where his father was a brewer and ship owner. James was one of 17 children, of whom nine reached adulthood. An elder brother, George, became Regius Professor of Medicine in Cambridge.

Paget's father's business failed while James was still at school and, at the age of 17 years, he was apprenticed to Charles Costerton, a local general practitioner, who had trained at St Bartholomew's Hospital. Paget spent his spare time studying the local fauna and flora and, in 1834, together with his brother

Charles, he published an extensive volume

entitled 'A sketch of the natural history of Yarmouth and its neighbourhood'.

In 1834, with introductions from Costerton and from his elder brother, James, Paget now aged 20 years, entered St Bartholomew's Hospital as a student – a relationship which continued for the rest of his life. He did well as a student, gained many prizes, and qualified Member of the Royal College of Surgeons in 1836. When the rank of Fellow was created in 1843, he was among the group of Members elected to the Fellowship without examination.

While still a student, Paget made his first original contribution. He investigated the little specks occasionally seen in human muscles at autopsy and called 'bony spicules'. At that time there was no microscope in the medical school but Paget loaned one from the Natural History Department of the British Museum and described the little worm, *Trichina spiralis*, curled up and surrounded by a capsule, which he identified in each speck.

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After qualifying in 1836, James passed through seven lean, but formative, years. He supported himself by working as sub-editor of the *Medical Gazette*, writing leaders, reviewing books and reporting lectures. He served as resident warden of the student's college, was curator of the museum and then, in 1839, demonstrator in morbid anatomy. Financially, things improved when he was appointed lecturer in anatomy and physiology in 1843. Soon after his qualification in 1836, James, although almost penniless, became engaged to Lydia North, the daughter of a parson. Now, in 1844, with the improved salary, they were able to marry and enjoyed more than 50 years together.

In 1847, at the age of 33 years, and having had very little in the way of operative

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experience, Paget was appointed to the consultant staff at Bart's as Assistant Surgeon. Not surprisingly, he was to make his name as a brilliant teacher, lecturer, clinician and what today we would call a surgical pathologist rather than as a technical surgeon. Over the years, he developed an enormous clinical practice, often as a second opinion. His patients included members of the Royal family and he was appointed surgeon to Queen Victoria in 1858, being created a baronet in 1871.

But what of the eponyms that bear his name? In 1874, Paget published a classical paper, 'On disease of the mammary gland areola preceding cancer of the mammary gland', in the *St Bartholomew's Hospital Reports*. He describes 15 examples of ulceration of the skin of the nipple which preceded malignancy in the underlying breast. In 1877, Paget published 'On a form of chronic inflammation of bones (osteitis deformans)' in the *Medico-chirurgical Transactions*. He describes and figures a patient first seen at the age of 46 years and followed up until his death and autopsy 22 years later, who developed many of the classical features of this rela-

tively common (but still mysterious) condition. There was progressive enlargement of the skull, thickening and curvature of the long bones, kyphosis and finally sarcomatous change in his radius. Paget refers to four other patients and to three similar published cases.

Among other diseases described and studied by Paget are the intradermal in-situ squamous carcinoma of the penis, which progresses to a frank ulcerating epithelioma, now often referred to as 'the erythroplasia of Queyrat' (following a report by the French dermatologist in 1911), spontaneous thrombosis of the axillary vein (1858), Paget's 'recurring fibroid tumours' (1853) – tumours of low malignancy found in the subcutaneous tissues of the lower abdomen and thighs, and Paget's 'quiet

necrosis of bone' (1870), now recognized as osteochondritis desiccans, where a fragment of cartilage, with or without underlying bone, becomes separated from a joint surface.

These and his other publications reveal Paget as an acute clinical observer with a profound knowledge of surgical pathology, based on his early years in the autopsy room and museum at Bart's and later in his work at the Hunterian Museum of the Royal College of Surgeons. Between 1846 and 1849 he published his five-volume catalogue of the College of Surgeons collection. James Paget was a reserved and serious man, a brilliant lecturer and teacher and a conscientious administrator. He served on Council of the Royal College of Surgeons and was President in 1875. He was elected a Fellow of the Royal Society (unusual in a surgeon) in 1851.

In 1871 Paget nearly died of sepsis following an accidental cut of the hand while performing an autopsy. This led to his resignation from the surgical staff at St Bartholomew's Hospital. He died of pneumonia on 30 December 1899. Truly a great surgical scientist. **BJHM**

Conflict of interest: none.