Sir James Paget: a biographical note

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‘It is among the first necessities for success in practice that, in the total phenomena of a disease observed in any patient, you should be able to estimate what belongs to the disease and what to the man.’ (Sir James Paget)

Paget’s Disease of Bone

On November 14th 1876, Sir James Paget1 read his paper to the Royal Medico-Chirurgical Society On a form of chronic inflammation of the bones ‘osteitis deformans’. His patient was a man first seen in 1836 with painful deformities of the spine causing a simian stance. Visual loss and deafness were noted by 1872. At necropsy, the bone was so soft it could be cut by a razor. I abstract some points of interest from his paper.2

‘I hope it will be agreeable to the Society if I make known some of the results of a study of a rare disease of bones … I would suggest that for brief reference … it may be called after its most striking character, Osteitis Deformans.

It begins in middle age or later, is very slow in progress, may continue for many years without influence on the general health, and may give no other trouble than those which are due to changes of shape, size and direction of the diseased bones.

... The skull became gradually larger, so that ... the helmet that he wore as a member of the Yeomanry Corps needed to be enlarged. In 1844, he wore a shako measuring 22\(\frac{1}{2}\) inches inside; in 1876, his hat measured 27\(\frac{1}{2}\) inches inside.

... the left tibia had become larger and had a well-marked anterior curve as if lengthened while its ends were held in place by their attachments to the unchanged fibula.

Paget later observed several complications, including retinal haemorrhage, visual loss and deafness, that are understood to result from hypertrophic bone encroaching on the foramina through which run the cranial nerves:

‘It may be only be by chance coincidence, but it seems worth mentioning, that in the 23 cases, four, after long continuance of the osteitis became blind.’

The fact that the bone was liable to what we now call pathological fractures, he also recognized:

‘... as he was riding and suddenly raised his arms, the bone broke near the shoulder.’

Having described in 1877 that:

‘in 3 of the 5 well-marked cases cancer appeared in later life; a remarkable proportion’, he noted in 1889 ‘The frequency of cancer or sarcoma occurring in those affected with osteitis is confirmed. The cause of the disease was as perplexing then as it is now ... Comparing these measurements with those of average healthy skulls, it may be said that the bones of the skull were in every part increased to about four times the normal thickness ... Only three things could produce so great an increase in the size of a bone, namely, new growth (tumour), hypertrophy and chronic inflammation. The first of these may be at once set aside ... nor is the second much more probable than the first ... chronic inflammation remains.’

In a later publication3 he described additional cases including a woman of 65 with:

‘... loss of height of 4\(\frac{1}{2}\) inches; ... curvature of the dorsal spine producing a stooped posture, distress of breathing on emotion or exertion; ... outward and forward curving of the femora and tibiae.’

This woman died of:

‘Bright’s disease and valvular disease of the heart

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with extreme anasarka, but not due to disease of the bones unless the difficulty in breathing was aggravated by the deformity of the chest. Examination after death was not allowed. Was Paget observing the high output cardiac failure due to ventilatory failure, valvular disease, or was it the result of the vascular shunts of the bone disease? James Paget (1814–1899) (Figure 1) was born in Yarmouth on January 11, 1814, son of Samuel Paget a clerk to the Admiralty and sometime Mayor of Yarmouth. His older brother was George E. Paget, Regius Professor of Medicine at Cambridge. When aged 16, on payment of 100 guineas, he was apprenticed to Charles Costerton, surgeon. He entered St Bartholomew’s Hospital in 1835, qualifying MRCS two years later, after a brilliant student career. He was chosen to catalogue and describe specimens in the museums of St Bartholomew’s hospital and the Royal College of Surgeons, and was demonstrator in Anatomy and lecturer in physiology. His charm, industry and scrupulous integrity earned him friendship and popularity. Worshipped by patients and trusted by medical associates, his future was assured. He devoted long hours to anatomy, pathology and surgery, and became assistant surgeon, then consulting surgeon, at Bart’s and Professor of Anatomy and Surgery at the Royal College of Surgeons (1847–52). Paget’s many gifts made him a much-sought-after lecturer. He ranged widely over surgical topics, pathology, physiology, education, and theology in science. Some of these were collected in Clinical Lectures and Essays, 1875. He was elected FRS in 1851 and started consulting practice in which he excelled. Councillor and President of the College of Surgeons, he became Surgeon to Queen Victoria in 1877, and in the same year was made Baronet.

As a student, while dissecting, he observed white specks in muscles that microscopically he showed were encapsulated worms of trichinosis—the first description in man. He reported Paget’s disease of the nipple, a sign of intraductal carcinoma, in the St. Bartholomew’s Hospital Reports of 1873. Idiopathic thrombosis of the axillary vein (sometimes known as the Paget-Schroetter syndrome) was another of his notable contributions. It is from his description of osteitis deformans that his name is universally remembered.

James Paget’s personal virtues of honesty, dedication, and brilliance secured him friendship amongst a wide range of distinguished contemporaries. He was impecunious for much of his early life, paying off debts incurred by his father, and supporting his family on a meagre salary. After he resigned the Wardenship of the College in 1851, he started practice at 24 Henrietta Street, Cavendish Square; his income: ‘beginning at £700, it gradually … every year increased till it exceeded £10,000; then I gave up operating, and it fell at once to about £7000, and then slowly decreased.’

Biographers of his time paint a picture of a sincere, religious but moderate man of great abilities. His breadth of study, attention to accuracy, and the ceaseless pursuit of scientific inquiry in the realms of anatomy, microscopy and physiology, is remarkable. These qualities are perceptible in his lectures; his many students found them inspiring. There is a story, possibly apocryphal, that Gladstone remarked that ‘people were of two classes—those who had and those who had not heard James Paget’. Other friends included: Cardinal Newman, Ruskin, Tennyson, Robert Browning, George Eliot, Tyndall, Huxley, Darwin, and Pasteur.

A scholarly man, he had a passion for Italian music and for the compositions of Bach. He also
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had a love for brevity of expression. A favourite saying was ‘To be brief is to be wise, to be epigrammatic is to be clever.’ He distrusted cleverness, and proverbs: ‘As false as most proverbs’ he was wont to remark. Paget held deep religious beliefs; he disliked politics—medical and national—perhaps recognizing their compromise of truth and straight dealing. At the age of 64, he ceased operating, but continued consulting practice for another 10 years. His son describes his gradual physical decline so that ‘by March 1898 he could no longer do without a nurse.’ His interests, intellect and theological study were largely undiminished, but he was unable to walk and his voice was reduced to a whisper; he lost the use of his right hand. He remained singularly free of complaint, accepting his final days with wonderful grace and tranquility.

He was justly proud of his family. One of his sons was Bishop of Oxford. Another son Stephen Paget was a distinguished surgeon, probably best known as the author of: Contessio Medici; his father’s memoirs and letters; and a classic biography of John Hunter (1897), to which his father, just 2 years before his death, wrote an erudite Introduction.

Note

‘Concluding remarks in a lecture to students given by Paget in ‘Clinical Lectures and Essays’, 1875.

References