Beevor's Sign

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Charles Edward Beevor may not be amongst the best-remembered neurologists, but the eponymous sign he discovered is, to this day, commonly found in neurological, neurosurgical, physical medicine and orthopaedic writings. Paradoxically, Beevor left much more significant legacies to neurology on cerebral localisation and the blood supply to the brain.

Beevor's sign is said to be characteristic of a cord lesion at the T₁₀ level, but is also described inter alia in amyotrophic lateral sclerosis and in facioscapulohumeral muscular dystrophy [1]:

‘When a patient sits up or raises the head from a recumbent position, the umbilicus is displaced toward the head. This is the result of paralysis of the inferior portion of the rectus abdominal muscle, so that the upper fibres predominate pulling upwards the umbilicus’.

Beevor [2] was born in London on June 12, 1854 to Charles Beevor, FRCS, surgeon, and Elizabeth (née Burrell). He attended Blackheath Proprietary School and read Medicine at University College, London, qualifying MRCS, LSA in 1878. He trained at University College Hospital and at the National Hospital for the Paralysed and Epileptic (Queen Square) before working in Vienna, Leipzig, Berlin and Paris for further experience. Erb, Cohnheim and Weigert were among his tutors; we can imagine that their concentration on the nervous system encouraged him to seek the appointment of assistant physician at Queen Square on his return to England in 1883.

He was also appointed to the Great Northern Central Hospital in 1885. He obtained the London MD, and was elected FRCP in 1888.

He concentrated his efforts on the then topical localisation of cerebral functions [3], working for 4 years with Sir Victor Horsley. From 1884 to 1890, Horsley was professor-superintendent of the Brown Institute for Animals in Wandsworth Road, where Beevor collaborated and achieved a high reputation. His lifelong friend, Sir Charles A. Ballance (1856–1936), was also involved in his work on cerebral localisation in primates [4].

His clinical work continued and he published a highly regarded *Handbook on Diseases of the Nervous System* in 1898.

With another neurologist, Armand de Watteville, he described the jaw jerk reflex in 1885. The first patient was a woman with amyotrophic lateral sclerosis who had an increased jaw jerk¹, which he demonstrated by introducing ‘a tongue depressor or paper knife in the mouth’ and striking ‘either object with a thin bound book or best of all with a percussion hammer’.

¹ However, de Watteville noted the reflex had been observed ‘in a case in America’, but offered no reference. A bibliographic reference by Charles K. Mills (The Nervous System and Its Disease) established that the American neurologist, Morris James Lewis (1852–1928), had previously described the jaw jerk.

His interests in cerebral localisation continued, and he was awarded the Croonian Lecture of the Royal College of Physicians in 1907. He gave the prized Lettsomian Lectures before the Medical Society of London in 1907 on the diagnosis and localisation of cerebral tumours. In keeping with Jacksonian concepts he also coined the axiom:

‘The brain knows nothing of individual muscle action but only movement’.

His most important research, however, concerned the arterial supply of the brain [5]. This advanced contemporary anatomical knowledge and was published in the Philosophical Transactions of the Royal Society of London in 1908. The anterior choroidal territory was defined both by Kolisko and Beevor (1909), who noted:

‘The choroid plexus is usually supplied by the anterior choroidal artery’.

He demonstrated that the variability in territorial distribution of the major cerebral arteries might be much greater than had been previously recognized [6].

Although accessible personal details of his life are sparse, we get some estimation of the man from his close friendships with Horsley, Ballance and others. Beevor emerges as a true gentleman. He was said to have been a man of exceptional modesty and simplicity of character, self-critical to the highest degree, and gifted musically and artistically [7]. He married Blanche Adine in 1882 and had one son and one daughter. He died in Wimpole Street on the 5th of December 1908.

References

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