

## Bell's Palsy Before Bell: Cornelis Stalpart van der Wiel's Observation of Bell's Palsy in 1683

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Bell's palsy is named after Sir Charles Bell (1774–1842), who has long been considered to be the first to describe idiopathic facial paralysis in the early 19th century. However, it was discovered that Nicolaus Anton Friedreich (1761–1836) and James Douglas (1675–1742) preceded him in the 18th century. Recently, an even earlier account of Bell's palsy was found, as observed by Cornelis Stalpart van der Wiel (1620–1702) from The Hague, The Netherlands in 1683. Because our current knowledge of the history of Bell's palsy before

Bell is limited to a few documents, it is interesting to discuss Stalpart van der Wiel's description and determine its additional value for the history of Bell's palsy. It is concluded that Cornelis Stalpart van der Wiel was the first to record Bell's palsy in 1683. His manuscript provides clues for future historical research. **Key Words:** Bell's Palsy—History—Facial Paralysis—Facial Nerve—Stalpart van der Wiel—Sir Charles Bell—Facial nerve surgery. *Otol Neurotol* 26:1235–1238, 2005.

“Early in the winter of 1683...the housewife of Verboom, shoemaker in The Hague...went to church to thank God for her fortunate childbirth.” Shortly after her visit to church, she noticed “a twisting of her mouth from the left to the right side...the affected side was weak and numb, one eye could not be closed properly...and she drooled at one side.” After medicinal treatment “she was cured from this bad condition by God's blessing within three weeks.” This report of Bell's palsy was recently discovered in the Ancient Book Department of the University of Amsterdam. It was written by Cornelis Stalpart van der Wiel from The Hague in 1686.

Bell's palsy is named after Sir Charles Bell (1774–1842) from London, ever since he wrote his famous papers on facial paralysis in the 1820s (1). Although he reported several cases of facial paralysis, Bell's palsy was not part of these early descriptions (2–6). In contrast, Nicolaus Anton Friedreich (1761–1836) of Würzburg (Germany) did write an extensive thesis in 1797 about Bell's palsy, which he called *Rheumatic Facial Paralysis* (6–9). In addition, a short description of Bell's palsy, dated in 1704, was found in the unpublished, hand-written

notes of the physician James Douglas (1675–1742) from London (5,6). Sir Charles Bell himself was therefore certainly not the first to describe Bell's palsy (5,6,8,9). Our current knowledge of the history of Bell's palsy before Bell is limited to these few documents. Therefore, it is interesting to discuss Stalpart van der Wiel's description of Bell's palsy in 1686 and determine its additional value for the history of Bell's palsy.

### “A TWISTING OF THE MOUTH OR ONE-SIDED SPASM OF THE MOUTH”

Cornelis Stalpart van der Wiel (Fig. 1) was born in The Hague, The Netherlands, in 1620. At that time, the Dutch people were involved in a war against the Spanish besieger. This war, which lasted 80 years and is also known as the “Spanish War,” ended in 1648 with a Dutch victory.

Cornelis studied medicine at the University of Franeker, in the North of The Netherlands (Friesland). Once he got his medical degree in 1642, he returned to The Hague, where he was appointed City Physician. Later, he also became reader (lector) in anatomy and surgery. Stalpart van der Wiel retired in 1688 and died at the age of 82, in 1702.

During his last years of practice, Cornelis published his work with the title, *Hondert seldsame aanmerkingen so in de genees- als heel- en sny-konst* [*Hundred Rare Observations in Medicine, Surgery and Anatomy*]. He wrote down these clinical observation for his son Pieter's

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Presented at the 24th Politzer Society Meeting in Amsterdam, The Netherlands, August 31 to September 4, 2003, and the 5th European Congress of Oto-Rhino-Laryngology Head and Neck Surgery, Rhodos, Greece, September 11 to 16, 2004.



FIG. 1. Portrait of Cornelis Stalpart van der Wiel (1620–1702). Library of the University of Amsterdam.

medical training. Pieter succeeded Cornelis as City Physician in 1688 (10).

*Hondert seldsame aanmerkingen* [*Hundred Rare Observations*] (Fig. 2) consists of two volumes published in 1682 (11) and 1686 (12), respectively. The first volume contains 100 and the second volume comprises 50 “rare” clinical observations. The book was widely known: Albrecht von Haller (1708–1777), the great physiologist and encyclopedian of the 18th century, lists its entire contents in his *Bibliography of Surgeons* (10). In addition, Charles Victor Daremberg (1817–1872), the celebrated French medical historian, valued it in his *Histoire des sciences médicales* [*History of Medical Sciences*] (Paris, 1870): “Il y a peu d’ouvrages dans la littérature médicale aussi recommandables et plus utiles” (there are few books in medicine that are as recommendable and as useful, page 966) (13). The work was translated into Latin (14) and French (15).

Stalpart van der Wiel’s description of Bell’s palsy was found in the “first part of the second-hundred rare observations” (12). It is the 12th observation, described in pages 96 to 100 under the title “Een scheefftrekking des Monts, of geseyde Monts-kramp” [A twisting of the mouth or one-sided spasm of the mouth]. It is a detailed report of Bell’s palsy, observed in 1683: “In ’t eerst van

Winter-maant des Jaars 1683...de Huysvrouw van Verboom, Schoenmaker alhier in ’s Gravenhage woonagtig...begaf sig na de Kerk, om Godt dankbaar te sijn voor haar gelukkige verlossing” [Early in the winter of 1683...the housewife of Verboom, shoemaker in The Hague...went to church to thank God for her fortunate childbirth]. As she was “only fourteen days post partem,” she was “reckless and imprudent by leaving the house, endangering herself of many and various illnesses.” Shortly after her visit to church, she noticed “een scheefftrekking haars monts, van de linker na de regter-zyde” [a twisting of her mouth from the left to the right side]. In addition, “missen van pijn, en weynig gevoel in deselve zyde...hier by quam datse soo heel wel niet kauwen kon, dat hare lippen niet regt op den anderen slouten, en t’een oog niet wel toegeknepen wiert; sy kon ook niet wel uytblazen, nog uytspoegen, doende sulx maar van d’een zyde, ’t quil liep haar van ’t selfs uyt de mont” [the affected side was painless and numb...she chewed inefficiently, her lips did not close straightly, and one eye could not be closed properly; she could only blow and spit from one side, and she drooled]. “As she was very impaired by the affection, she consulted me immediately.” Stalpart van der Wiel treated her with several antirheumatic ointments



FIG. 2. Frontispiece of *Hondert seldsame aanmerkingen so in de genees- als heel- en sny-konst* [*Hundred Rare Observations in Medicine, Surgery and Anatomy*] by Cornelis Stalpart van der Wiel, The Hague, 1682–1686, in which the early account of Bell’s palsy is described. Library of the University of Amsterdam.

and medicines, such as unguentum nervinum, lignum guajacum, and chamaepithys (12) and “binnen den tijd van drie weken is sy aldus onder Godts zegen van dese moeyelijke quaal t'eenemaal bevrijt geworden” [within three weeks she was cured from this hard condition by God's blessing].

## DISCUSSION

Cornelis Stalpart van der Wiel obviously observed a case of Bell's palsy as he described most symptoms of a complete peripheral facial paralysis and the typical course with the sudden onset (after exposure to “cold”) and the spontaneous recovery of the palsy (after medicinal treatment) within a few weeks. In addition, the patient in question had her palsy immediately post partum, a time of increased risk for the disease.

Stalpart van der Wiel called the affection: “een scheefftrekking des Monts, of geseyde Monts-kramp” [a twisting of the mouth, or one-sided spasm of the mouth]. According to Cornelis “the ancient writers, like Celsus, Galen and Avicenna” used several less descriptive terms like “spasmus cynicus, of Honts-kramp” [cynic spasm or dog spasm]. Cynic spasm, he continued, was, however, “a general name for all types of twisted mouths” (12). Mettler in her *History of Medicine* (1947) confirmed this: “facial paralysis caused the ancients more trouble than other types (of palsy)...cynic spasm or canine spasm is a complex category among which facial palsy was probably included” (16).

Although Stalpart van der Wiel used the term “spasm,” he is certain that his patient suffered from a palsy, as “de slapheyt en sagtheyt van 't lydende deel te kennen gaf” [the affected side was weak and soft]. In addition, the same side was “missen van pijn en weynig gevoel” [painless and numb]. The palsy resulted from the “smaak zenuwen” [gustatory nerves] or “third pair of cranial nerves” (the present-day trigeminal nerves) (17,18). This was consistent, in contrast with our current knowledge, with the general belief in those days that both facial sensation and movement were equally mediated by the trigeminal and facial nerves (19). It was not until after Bell's experiments in the 1820s that the correct physiology and innervation of the facial muscles was known (19).

Because Cornelis was educated in the Galenic tradition, he believed that facial palsy resulted from obstruction of the hollow (facial) nerves by mucous fluid after being exposed to “cold.” As a consequence, the passage of “geesten” [spirits] to the facial muscles at the affected side was interrupted and “her cheek was pulled aside by the healthy contralateral muscles.”

To cure the palsy, Stalpart van der Wiel successfully applied several antirheumatic ointments and medicines (12). Within a few weeks, his patient was cured. The same kind of treatment was used by Douglas in 1704 (5). Later, in 1797, Friedreich added electrotherapy (7,9), which had developed during the 18th century (Table 1). The first operation to decompress the facial nerve in Bell's

**TABLE 1.** Chronology of the treatment of Bell's palsy

Date	Doctor	Country	Treatment
1683	Stalpart van der Wiel (12)	The Netherlands	Medicinal
1704	Douglas (5)	England	Medicinal
1797	Friedreich (7-9)	Germany	Medicinal + electrotherapy
1820's	Bell (2-4)	England	Not mentioned
1895	Ballance (22,23)	England	Facial nerve repair
1932	Ballance/Duel (20,21)	England/U.S.A.	Facial nerve decompression

palsy was reported by Charles Ballance and Arthur Duel in 1932 (20,21). Ballance was also the first to operate on the facial nerve in 1895 in a case of irreversible facial paralysis (22,23).

## CONCLUSION

Although Bell's palsy is named after Sir Charles Bell, he was certainly not the first to describe it. In fact, Friedreich and Douglas preceded him in the 18th century. However, the chronology has now to be revised because Cornelis Stalpart van der Wiel from The Netherlands clearly observed and recorded a case of Bell's palsy in 1683. Therefore, Stalpart van der Wiel has the priority of being the first to describe Bell's palsy.

Our current knowledge of the early history of Bell's palsy is still limited to a few observations. Stalpart van der Wiel, however, provided us with various clues for future historical research with his discussion of cynic spasm and other synonyms of facial paralysis. The authors therefore believe that more early accounts of Bell's palsy will be discovered in the future.

**Acknowledgments:** The authors thank Dr. P.P. Devriese from Amsterdam, The Netherlands, Dr. P. Koehler from Heerlen, the Netherlands, and Dr. J.M.S. Pearce from Hull, United Kingdom, for their valuable advice.

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