

## Sleep-Related Disorders

Sleep-related disorders have progressively achieved a higher profile in neurological practice in recent years, with the inception of more subspecialty clinics, although the UK still lags behind other countries in such provision. As with other neurological conditions, possible accounts of sleep-related disorders are to be found in stories and novels, which may predate clinical recognition.

As is well-known,<sup>1</sup> one sleep-related disorder takes its name from a literary description, viz. the Pickwickian syndrome. In Charles Dickens's *Posthumous Papers of the Pickwick Club* (1837), Joe the fat boy is reported to be obese, with a ruddy complexion, hypersomnolence, and dropsy, features which subsequently prompted use of the term "Pickwickian syndrome" to describe similar cases, a term more recently superseded by obstructive sleep apnoea-hypopnoea syndrome (OSAHS). However, Cosnett, reviewing this case and other possible instances of sleep-related disorders in the works of Dickens,<sup>2</sup> suggests that Joe may in fact have had a diencephalic tumour or possibly suffered the consequences of a head injury. He also identifies Mr Willet in Dickens's *Barnaby Rudge* (1841) as a possible case of OSAHS.

Although only described as such in recent years, OSAHS has in all likelihood been around for centuries, possibly millennia. Dionysius, the obese tyrant of Heracleia on the south coast of the Black Sea in the fourth century BC, was in danger of choking if he fell deeply asleep, and thus had to be woken with fine needles pricked into his skin.<sup>3</sup>

Another possible account occurs in Anton Chekhov's play *The Cherry Orchard* (1903): Boris Borisovich Simeonov-Pishchik, a landowner, "drops asleep and snores" in the midst of speaking, only to wake again "at once" and continue what he was saying. Later, he reports that he has high blood pressure and has had a stroke twice already, which makes dancing difficult, before again falling asleep, snoring, and waking almost at once.<sup>4</sup> OSAHS may present in the neurological clinic in various guises, including headache, blackout, seizure, stroke, or memory impairment,<sup>5</sup> and may be associated with high blood pressure and be a risk factor for stroke.

Before he undertook his major expeditions in Africa, Dr David Livingstone had his uvula excised in 1852, ostensibly because he suffered from "clergyman's sore throat", a disorder which affected his ability to preach to large numbers of people.<sup>6</sup> However, he comments of the uvula that:

*It sometimes fell down on the opening of the wind-pipe in sleep & made me start up as if suffocating.<sup>7</sup>*

One wonders if perhaps these were episodes of sleep apnoea, although certainly one nowhere has the impression that Livingstone suffered from excessive daytime somnolence. Another possibility is the "sleeping-choking syndrome", a little-described parasomnia.

Of the many recognised parasomnias, sleepwalking is perhaps the most dramatic, and one which artists have been willing to make use of: Bellini devotes an opera to the subject (*La Sonnambula*). In Johanna Spyri's *Heidi* (1880), strange things come to pass when the little girl is residing in the Frankfurt city home of Clara Sessman: each morning the doors are found wide open, despite being closed at night, leading the servants to believe that there is a ghost in the house. Herr Sessman summons his old friend the doctor to sit up with him all night to solve the mystery: Heidi is a sleepwalker. The doctor elicits the

history that during her somnambulation Heidi is dreaming of her natal home with her grandfather in the mountains. The diagnosis is that Heidi is consumed with home-sickness and must be sent back to her native mountain air. "This illness is not one to be cured with pills and powders" the doctor shrewdly advises. Interestingly, it had been previously mentioned that Heidi's deceased mother, Adelheid, was "a sleep-walker, and had fits".<sup>8</sup>

Excessive daytime somnolence often provokes a provisional diagnosis of narcolepsy, but the full syndrome of daytime somnolence, impaired nocturnal sleep, cataplexy, sleep paralysis, and hypnogogic or hypnopompic hallucinations is rather seldom encountered in clinical practice. One possible literary example of a character with sleep paralysis is to be found in *The Subtle Knife*, the second book in Philip Pullman's trilogy *His Dark Materials*: the aeronaut Lee Scoresby finds himself pursued by airborne enemies, who are counter-attacked by the thought commands of his passenger, the shaman Stanislaus Grumman:

*"Pinned in his dream, Lee could neither move nor cry out, and he suffered the terror of the pilot as the man became aware of what was happening to him."<sup>9</sup>*

Possible sleep-related disorders have also been identified in another Oxford based classic, the Alice books: the excessively somnolent dormouse at the mad tea party (*Alice's Adventures in Wonderland*, chapter 7), and the snoring The Red King and the White and Red Queens (*Through the looking-glass*, chapters 4 and 9).<sup>10</sup>

Sleep and its addenda were clearly subjects which fascinated William Shakespeare. Everyone knows "To sleep, perchance to dream" from the famous "To be or not to be" soliloquy in *Hamlet* (Act III, scene i, line 65). In *The Tempest*, Sebastian is clearly ahead of the medical thinking of his time when he remarks to Antonio "Thou dost snore distinctly. There's meaning in thy snores" (II;i:220-221). The many references to sleep in *Macbeth* include "wicked dreams abuse the curtain'd sleep" (II;i:50-51) and "sleep in the affliction of these terrible dreams, that shake us nightly" (III;ii:17-19). Might these possibly be early references to dream enactment in REM sleep behaviour disorder?

### References

- Larner AJ. *Charles Dickens, qua neurologist*. *Advances in Clinical Neuroscience & Rehabilitation* 2002;2(1):22.
- Cosnett J. *Charles Dickens and sleep disorders*. *Dickensian* 1997;93(3):200-4.
- Jones P. *Ancient and modern*. London: Duckworth, 1999:56.
- Fen E (transl). Chekhov: Plays. Harmondsworth: Penguin, 1959: p 346-347, 370.
- Larner AJ. *Obstructive sleep apnoea syndrome presenting in a neurology outpatient clinic*. *Int J Clin Pract* 2003;57:150-2.
- Larner AJ. *David Livingstone's uvulectomy*. *J Med Biogr* 2006;14:104-8.
- Schopera I (ed.). *David Livingstone: family letters 1841-1856 (2 volumes)*. London: Chatto & Windus, 1959:II.177-178.
- Spyri J. *Heidi*. Godalming: Colour Library, 1999 [1880], p 155-165, 70.
- Pullman P. *The subtle knife*. London: Scholastic, 1997, p 305.
- Larner AJ. *The neurology of "Alice"*. *Advances in Clinical Neuroscience & Rehabilitation* 2005;4(6):35-36.



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