

The Anesthesiologists and the Arts

Pickwick Revisited

By Peter V. Tishler, M.D.

By the time the frightened patient was admitted into the Peter Bent Brigham Hospital, he was packing 263 pounds onto his five-foot-five-inch frame. For as long as he could remember, the man explained, he had been overweight, but now he had an alarming new set of problems to go along with his obesity.

Overeating in response to a series of “anxieties and frustrations” had caused the man to gain nearly 70 pounds in less than a year, his physician, C. Sidney Burwell noted in a 1955 case report. As the patient’s girth increased so had his symptoms of fatigue, shortness of breath, and swollen ankles. But the man’s acknowledgment of the high stakes of his condition—and the event that propelled him to the hospital examining room—took place during a poker game.

In the year preceding his hospital admission, the man had occasionally fallen asleep—sometimes literally on his feet—while carrying on with his daily routine to the point that “he sometimes found it difficult to distinguish between reality and dreams.” The final straw came when the patient dozed off during his weekly poker game, waking too late to take advantage of the extraordinary hand he had been dealt—three aces and two kings. And yet, the patient’s squandered full house may have saved his life.

What the Dickens

Burwell, who served as dean of Harvard Medical School, may have been the first clinician to recognize the relationship between the poker player’s obesity and his hypersomnolence. As a researcher and professor of medicine, Burwell was involved in obesity research.

In addition to his research and teaching activities, Burwell maintained a clinical practice that focused, in part, on annual physicals of business executives. The obese 51-year-old patient whose case would ultimately inspire Burwell to write an article on what he labeled the “Pickwickian syndrome”—or morbid obesity associated with falling asleep at inappropriate times—was such an executive.

In writing up the case, Burwell and his colleagues drew a parallel between the patient and a fictional character, Joe the Fat Boy, from Charles Dickens’ 1837 novel, originally serialized as *The Posthumous Papers of the Pickwick Club*. In his article Burwell set the stage for naming the syndrome by invoking Joe:

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A most violent and startling knocking was heard at the door ... a constant and uninterrupted succession of the loudest single raps ...

The object that presented itself to the eyes of the astonished clerk was a boy—a wonderfully fat boy—habited as a serving lad, standing upright on the mat, with his eyes closed as if in sleep ...

“What’s the matter?” inquired the clerk. The extraordinary boy replied not a word, but he nodded once, and seemed, to the clerk’s imagination, to snore feebly.

“Where do you come from?” inquired the clerk.

The boy made no sign. He breathed heavily, but in all other respects was motionless.

The clerk repeated the question thrice, and receiving no answer, prepared to shut the door, when the boy suddenly opened his eyes, winked several times, sneezed once, and raised his hand as if to repeat the knocking. Finding the door open, he stared about him with astonishment, and at length fixed his eyes on Mr. Lowten’s face.

“What the devil do you knock in that way for?” inquired the clerk, angrily.

“Which way?” said the boy, in a slow and sleepy voice.

“Why, like forty hackney-coachmen,” replied the clerk.

“Because master said, I wasn’t to leave off knocking till they opened the door, for fear I should go to sleep,” said the boy.

Burwell’s connection between hypersomnolence and the Dickens novel displeased an editorialist in the *New England Journal of Medicine*, who countered that the syndrome should be called Fat Joe’s Folly.

Naming Rights

The notion that Burwell and his colleagues were the first to recognize and describe the Pickwickian syndrome and to link it with Dickens’ character is only one of several erroneous ideas surrounding the syndrome. The first clinical description may actually have been written almost two centuries before Burwell brought it to wide attention. In the same year in which the American colonies declared their independence from Britain, the physician John Fothergill reported on two obese patients from his London practice, both of

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whom exhibited classic symptoms of the syndrome. In one patient, Fothergill wrote, the manifestations of the disease eventually remitted with weight loss.

From the early 1800s up through the 1950s, other physicians recorded cases similar to Fothergill's. The common denominators in their descriptions were obesity and hypersomnolence. But some of them also noted features such as cyanosis, polycythemia, and right heart failure. And, just as the syndrome itself was not new to the medical literature, Burwell's invocation of Dickens in his naming of it also had precedent in the past. In fact, the syndrome had first been likened to the phenotype of Joe in *The Pickwick Papers* as early as 1889, by Christopher Heath, then president of the Clinical Society of London.

A little over a decade after Heath made his Dickensian connection, Sir William Osler, writing in the fourth edition, published in 1901, of his classic text, *The Principles and Practice of Medicine*, noted that "an extraordinary phenomenon seen occasionally in excessively fat young persons is an uncontrollable tendency to sleep." In the sixth edition, published in 1905, he added the phrase "like the fat boy in *Pickwick*." Osler was aware of the prior case descriptions of the phenomenon and probably also knew that Heath had already invoked the likeness of Joe in *The Pickwick Papers*. Similarly, Byrom Bramwell, a British physician, described, in 1910, a boy who "presents in a minor degree a condition similar to the Fat Boy in *Pickwick*."

Singular Sensation

On November 14, 1955, Burwell presented a paper before the New England Cardiovascular Society entitled "A Pickwickian Syndrome," in which he described his poker-playing patient.

One year later, as lead author, Burwell published in the *American Journal of Medicine* the complete case report on his patient with the Pickwickian syndrome. The "careful study of one patient," Burwell's article explained, would provide a basis to "consider the association of obesity, somnolence, polycythemia, and excessive appetite." The paper included quotes from Dickens' *The Pickwick Papers* and a reproduction of Thomas Nast's drawing of Joe from an 1873 American edition of the novel.

But the whimsy of the name did not detract from the seriousness of the condition it described. In their paper, Burwell and his coauthors outlined the clinical features of the Pickwickian syndrome. These included marked obesity, somnolence, cyanosis, twitching (probably the myoclonic jerks/asterixis seen in association with hypercarbia), periodic respiration ("periods of apnea alternated with periods of tachypnea"), secondary polycythemia, right ventricular hypertrophy, and right ventricular failure (neck vein distention, hepatomegaly,

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and peripheral edema). The authors did not investigate the patient's breathing during sleep.

Fortunately, Burwell and his colleagues reported, with weight reduction, the patient's "somnolence, twitching, periodic respiration, dyspnea, and edema gradually subsided and his physical condition became essentially normal." They postulated that the patient's obesity had led to shallow respiration, possibly resulting from the increased strain of breathing. Continued shallow respirations, they speculated, had ultimately led to alveolar hypoventilation, with resultant hypoxia, hypercarbia, and other clinical manifestations.

A Pickwickian President?

Sotos reports that, not long after taking his oath of office in 1909, Taft, who had struggled with a weight problem throughout his life, enthusiastically wrote, "I have lost that tendency to sleepiness which made me think of the fat boy in Pickwick. My color is very much better and my ability to work is greater." Yet Taft's optimism would prove short-lived. The stresses of life in the White House helped ensure that his presidential weight never dipped below 300 and ranged as high as 340 pounds.

So hefty was Taft, who stood just under six feet tall, that he once got stuck in the White House bathtub, much to the merriment of the nation's press. After that incident, he called in plumbers to install a new tub spacious enough to accommodate four men. Size was not Taft's only unusual feature; he had an astonishing tendency to doze off in the midst of mourning at funerals, attending the opera, signing papers, reviewing troops, and even chatting with dignitaries. To rouse his boss from these embarrassing lapses, one of Taft's aides relied on a range of tricks from surreptitious pokes to feigned coughing fits.

To Sotos, Taft's well-documented obesity, snoring tendencies, and odd behavior add up to a likely diagnosis of sleep apnea. It is unclear whether the resulting impairment contributed to the widespread perception of the Taft presidency as one of the least successful in American political history. But it is known that, shortly after leaving office, Taft went on a physician-supervised regimen that enabled him to shed permanently more than 60 pounds. As his excess weight disappeared, so did his hypersomnolence and he went on to enjoy a distinguished nine-year career as chief justice of the Supreme Court.

Peter V. Tishler, M.D., is associate professor of medicine at Harvard Medical School in the Genetics Division and Channing Laboratory. He recalls being familiar with the Pickwickian syndrome when he was a house officer on the Harvard Medical Services at Boston City Hospital in the mid-1960s. He hopes to hear from anyone with experiences to add to this story and offers his willingness to supply references, upon request. Write to him at PeterTishler@channing.harvard.edu.