Sir Frederick Treves and Sympathetic Ophthalmia

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Sir Frederick Treves (1853-1923) is best known as the doctor and protector of the Elephant Man, Joseph Merrick (1862-1890) (Figure 1). Broadway plays, a movie, and several books have described Treves’ relationship with this horribly deformed man who is now considered to have had Proteus syndrome rather than the earlier hypothetical diagnosis of neurofibromatosis. Proteus syndrome is a rare disorder characterized by patchy, irregular overgrowth of multiple tissues. Partial gigantism of the hands and feet, hemihypertrophy, pigmented nevi, soft tissue tumors, and macrocephaly are some of its features.1-3 Typical ocular findings are strabismus, amblyopia, epibulbar lesions, high myopia, and heterochromia iridis.4-6 Treves reported that the Elephant Man’s eyes, orbits, and cranial nerves were normal.7

SURGICAL FAME

Treves was the most important surgeon in England a century ago, famous for having successfully operated on King Edward VII for appendicitis in 1902, just a few days before the King’s coronation. He was affiliated with the London Hospital and the Royal London Ophthalmic Hospital (Moorfields). Treves wrote several important medical texts and nonmedical best sellers. The Elephant Man and Other Reminiscences,8 first published the year he died, was the most popular of all his books and is remembered today for the vivid description of Merrick. This book deserves appreciation by ophthalmologists for another story, “A Restless Night,” which concerns sympathetic ophthalmia.

A caricature of Treves appeared in Vanity Fair magazine in 1900 (Figure 2), 2 years before he operated on King Edward VII. The caption comments that when he went off to school,9 no one predicted him an income of so many thousands as he has made for years past; when he began to walk the London Hospital no one suggested him as Hunterian Professor of Anatomy, or Wilson Professor of Pathology of the Royal College of Surgeons: yet he was both these things many years ago. . . . He is a cheery fellow with an alert manner who can tell a story well.

Treves received his medical education at the London Hospital Medical School, where he was strongly influenced by 2 famous faculty members, the surgeon Sir Jonathan Hutchinson and the neurologist Hughlings Jackson. After a brief period in general practice, he returned to the London Hospital as a house staff officer in surgery and quickly climbed the academic ladder. He was a very effective teacher with a charismatic effect on his students. His lectures were clear, precise, and delivered with a touch of dry humor. He could control an audience of unruly medical students or entertain a crowd of street toughs. Students respected Treves for they knew that royalty consulted him at his private office and that he gave excellent care to the common man at the London Hospital. (This institution, recently renamed the Royal London Hospital, provided indigent care in a rough district of London and treated the largest number of acute surgical cases in England.)

Treves’ interests ranged widely. As consultant surgeon to the London Zoological Garden, he was able to dissect many different species, some as exotic as the Sumatran rhinoceros, and published detailed reports.

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of comparative anatomy. He was a trim, athletic man with a commanding presence and a sharp tongue. His teaching method included “a constant flow of sarcasm” directed at his students and house staff officers.10 When an assistant equivocated on a diagnosis, Treves replied,11(p28)

The patient is not interested to know that it might be measles, or it might be a toothache. The patient wants to know what is the matter, and it is your business to tell it to him or he will go to a quack who will inform him at once.

Treves was very efficient in the operating room. He would describe each case clearly to all observers, knew exactly what he wanted to do, and did so with excellent results. A crowd of students and visitors from all over the world regularly followed him on hospital rounds. He worked very hard and would often return to the hospital on Sundays to examine patients more thoroughly than he could on teaching rounds. An exhausting bicycle ride of 40 to 50 miles often followed hospital rounds on Sundays. He was a certified master mariner who loved to sail across the channel to France, even when challenged by December weather. His students greatly admired him as a teacher and surgeon, and knew he could better them in nearly any athletic endeavor on land or sea.

His home life was simple and efficient. He would rise at 5 AM every day and write for several hours before breakfasting at 8 AM. The rest of the morning was spent in teaching and hospital rounds. The afternoons were devoted to surgery and private patients. Dinner took place at home with his wife and 2 daughters. He tried to limit hospital and medical society meetings to one evening per week. His quiet family life included one great tragedy, however. Although known as the English master of surgery for appendicitis, Treves was placed in the unenviable position of operating on one of his own daughters when 2 other surgeons demurred. Unfortunately, he operated too late, and she died shortly afterwards. He was more successful in the case of Edward VII less than 2 years later. The King then became his close personal friend and relied on Treves when making many decisions, both medical and social.

In 1907 the King developed a lesion just below the left eye, and Treves arranged for a physician with the curious name of Bismuth to remove it using electrolysis. The King held the leads in each hand, completing an electric circuit, but unfortunately no one realized that one wire rested on a gold chain he wore around his neck. He screamed out “I am being cut in half,” startling everyone. Following this fiasco, Treves had the dermatologist who had convinced Sir Arthur Conan Doyle to become an ophthalmologist, Malcolm Morris, complete the removal in a pain-free manner. A piece of radium was attached to the King’s spectacles for therapy over several weeks, destroying the lesion.

When Treves was a demonstrator of anatomy at the London Hospital, he was asked to write an anatomy text for surgeons. Surgical Applied Anatomy12 was first published in 1883 and became a classic used by generations of students, with the last edition published in 1962. His publisher considered him the ideal author because he promised to deliver the manuscript of the text within 4 months, and set the date and even the time it would be completed, to the great pleasure of his editor13:

The promise was literally fulfilled—my first and last experience of the kind in a long editorial career. The circumstance revealed to me that one of his chief characteristics was precision—a quality I afterwards found him to exemplify in everything he did. His industry was amazing.

Treves published many articles and books on surgical subjects. He was particularly interested in unusual cases and presented many to the Pathological Society of London. The Elephant Man was his most celebrated case, but he described many
A CASE OF SYMPATHETIC OPHTHALMIA

"A Restless Night" is a fictional story in The Elephant Man and Other Reminiscences. It is narrated by a physician who is passing through an Indian desert and happens to meet a surgeon serving in the Indian Medical Service. They travel together for a day, then stop for the night at a traveler’s bungalow in a remote wasteland, the closest village being far across the plain. The small, decrepit rest house consisted of a central room and bedrooms on either side. Each bedroom contained a small bed, but no bedding, a solitary chair, a worn table, and a partially silvered mirror. One door led to the common room while another opened to a drab bathroom that contained an unpainted tin bathtub. Each man had a servant who made the bathroom table appear more homelike by emptying the contents of their dressing bags on it.

After dinner the men sat in the central room, smoked, and shared stories. The Indian Medical Service surgeon described his experiences in the region, including “his conflicts with pessimistic patients and his struggles with fanaticism and ignorance.” He said the average Indian “had more confidence in a dried frog suspended from the neck than in the whole British Pharmacopoeia.”

One of his recollections was unforgettable. It was the tale of a stone mason from a nearby village with an eye that had been penetrated by a stone fragment. Following the injury, the eye became inflamed and the visual acuity was reduced to just light perception. Aware of the possibility of sympathetic ophthalmia after such an injury, the surgeon advised the mason to have his injured eye removed promptly, but the man preferred to consult a magician. When the uninjured eye developed inflammation, the mason returned to see the surgeon, who felt it was probably too late for enucleation of the injured eye to reduce the involvement of the good eye, but recommended doing so. He felt that removing the blind traumatized eye would make the mason feel better and had little chance of making him worse.

Sympathetic ophthalmia was a well-known complication of penetrating ocular trauma. Hippocrates had described the relationship of injury to one eye giving rise to disease in the other. William Mackenzie gave the entity its name and published a clear description of the process in 1840. Early in the 20th century, as now, prompt removal of the traumatized eye was the only known means of preventing the disease in the uninvolved eye.

Unfortunately, enucleation was too late to help the stone mason. The uninjured eye was involved by this time and he became totally blind. He blamed all his misfortunes on the
ing of animal feet coming toward the bed and a musky odor. He heard a rat climb onto the bed, another crawl over his clothes, while still one more hit his shoehorn, creating a clatter. Finding this more than he could take, he jumped out of bed, screaming. There was a scuttle of small feet toward the drain hole in the outer wall of the bathroom. When silence resumed, he tried to go back to sleep, but the patter of feet and sickening odor returned. Suddenly a sound arose from under the bed "that made every vein in my body tingle." It was a scraping he felt was due to a belt buckle rubbing the cement floor, worn by a man crawling on his stomach. At the same time a small animal with cold paws and hot fur crawled over his bare foot. He jumped out of bed, shouted, and lit a match. The room appeared empty, but he could not see under the bed. He used another match to light the lamp which he placed on the floor. A skull-like object came into view. It was only a dried up piece of bread the rats had been dragging around the room that had made the scraping noise.

Now convinced the room was empty, he moved the bathtub to the outer wall to block the drain hole. He returned to bed and left the lamp lit. He was able to sleep again and fell into a dream that continued the evening’s events. He dreamt that the bathroom door began to open and a hand emerged, followed by the body of a middle-aged Indian man, lean, sinewy, naked, and blind. The eyelids were closed and the sockets were as sunken as a cadaver. The native used his left hand to navigate along the wall and held a stone mason’s pick in his right hand. The narrator realized this was the man that the surgeon had described earlier that evening. The native had learned of the surgeon’s arrival, knew which room he usually occupied, and had come to murder him. Dreaming still, the narrator was so fascinated by the sight of this unhuman creature moving toward me that I could not stir a muscle. . . . I was so filled with the sense of a final calamity that I felt I had ceased to breathe.

The figure crept along, his teeth glimmering and breath audible.8(p149,150)

In another moment that awful pick would crash into my skull or plunge into my neck. . . . I was mesmerized as would be a rabbit in a corner within a foot of a snake.

The sound of the lamp flame crackling aroused him to roll off the bed quietly onto the floor, between the couch and the wall. While laying on the floor he could see the sinewy feet of the man and hear "the awful hand moving stealthily over the very pillow."9(p133) From under the bed he seized the man by the ankles and jerked him forward, so that his head crashed on the hard floor. The doctor ran out the bathroom door onto the Indian plain where the air was refreshingly cool, the sky full of stars, and a faint sign of dawn was visible in the distance. The sense of relief was only temporary, replaced by the panic. Had he killed someone? He returned to the bedroom, where the lamp was still lit, but the man was gone. A patch of blood lay on the floor where the man’s head had hit the cement floor. He awoke, feeling alarmed, cold, and tired. Finding no blood on the floor, he was relieved to know it was all a nightmare but found it nearly impossible to believe the events were not real.

The Elephant Man and Other Reminiscences8 is written in a style typical of turn of the 20th century British fiction. It is comparable to Sir Arthur Conan Doyle’s Round the Red Lamp,17 a collection of 15 medical stories based on Doyle’s experience as a physician. Even though Doyle specialized in ophthalmology before forsaking medicine in favor of fiction, his book does not emphasize eye problems. Doyle’s preface can serve as an answer to critics who objected to the stark realism of the tales in Treves’ The Elephant Man and Other Reminiscences.9 Doyle wrote “if you are anxious to make your doctors something more than marionettes, it is quite essential that you should paint the darker side.”17 Doyle realized that doctors do see some beautiful aspects of life, including “fortitude and heroism, self-sacrifice and love” but felt that these attributes result from bitter sorrow and tribulation. “One cannot write of medical life and be merry over it,” he stated. Doyle felt painful situations are aspects of reality and appropriate subjects for an author. Doyle thought a shocking story such as “A Restless Night” may be bitter, bracing, and more effective than a saccharine tale.

The Elephant Man and Other Reminiscences8 was widely reviewed, nearly always favorably. The New York Times praised Treves for his sympathy, understanding, and ability to look into “the inner consciousness of a strange company of people with emotional experiences of life common alike to the caveman and the man of the twentieth century.”18 The New Republic described Treves as a good raconteur, a surgeon with a vast supply of haunting tales that were not for those with a queasy stomach.19 The British Medical Journal admired his skill in bringing out “in sharp relief some aspect of human life and character,” and Treves’ ability to achieve a vivid effect “with economy of language,” incorporating humor, tragedy, and even terror.20 The Lancet noted,21

Anyone who has worked for years in a great hospital must have accumulated a store of facts dealing with various aspects of human nature in which the pathetic and the comic are intimately blended. Few, however, put their recollections into print, and fewer could do so with the blend of humour and charity of Sir Frederick Treves. In the case of the Elephant Man, Treves had a true story that simultaneously repelled and attracted the public, for Merrick was a spectacularly ugly man with an engaging personality. Capitalizing on the theme of sympathetic ophthalmia, Treves was able to develop a totally different medical subject into an entertaining horror story.

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REFERENCES


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Congratulations to the winner of our September quiz, Evangelos Manousakis, MD, vitreoretinal fellow, St Paul’s Eye Unit, Royal Liverpool University Hospital, Liverpool, England. The correct answer to our September challenge was acute central retinal vein occlusion. For a complete discussion of this case, see the Clinicopathologic Reports, Case Reports, and Small Case Series section in the October ARCHIVES (Paques M, Gaudric A. Perivenular macular whitening during acute central retinal vein occlusion. Arch Ophthalmol. 2003;121:1488-1491).

Be sure to visit the Archives of Ophthalmology Web site (http://www.archophthalmol.com) and try your hand at our Clinical Challenge Interactive Quiz. We invite visitors to make a diagnosis based on selected information from a case report or other feature scheduled to be published in the following month’s print edition of the ARCHIVES. The first visitor to e-mail our Web editors with the correct answer will be recognized in the print journal and on our Web site and will also be able to choose one of the following books published by AMA Press: Clinical Eye Atlas, Clinical Retina, or Users’ Guides to the Medical Literature.