

which ran in December of that year. While the rest of the world rejoiced over the reported conquest of tuberculosis, Conan Doyle argued that “Koch’s lymph” might remove traces of the enemy, but it left deadly germs “deep in the invaded country.” Its real value, Conan Doyle asserted, was as “an admirable aid to diagnosis,” in that a “single injection” would help doctors decide definitively whether a patient was “in any way tubercular.”

Conan Doyle was right. Koch’s lymph, or what we now refer to as tuberculin, was essentially a glycerin extract of a pure culture of tuberculosis germs. In the decades before the development of the much safer purified-protein-derivative test for tuberculosis, it

became an essential diagnostic tool. A few months later, in early 1891, after several highly publicized treatment failures, many exacerbated cases of tuberculosis, and not a few deaths closely associated with the administration of the so-called curative medication, Koch publicly retracted his even-tempered announcement of a remedy for tuberculosis and announced that although Koch’s lymph was an excellent means of diagnosing tuberculosis, the actual cure was nowhere in sight.⁵

One cannot help but be impressed by the way in which the young Conan Doyle, the creator of the greatest detective in English literature, figured out what took Koch, one of the most illustrious medical detectives in history, and

his accomplished colleagues many more months to realize. Sadly, the paper trail ends before we can definitively ascertain how Conan Doyle cracked “The Case of Koch’s Lymph.”

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Remembering Berton Roueché — Master of Medical Mysteries

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“He was never going to sleep again. Sleep was a waste of time. Then he got the idea I was trying to poison him. He didn’t trust me, he said, and if I didn’t leave him alone, he would tear off his clothes and run out in the street naked.”¹

Fifty years ago, these words taught the public about a horrifying side effect of the new “wonder drug” cortisone: mania. The speaker was the wife of a man who had been treated with cortisone for his previously incurable periarteritis nodosa, and the author quoting her was Berton Roueché, who wrote the “Annals of Medicine” feature in the *New Yorker* magazine from the 1940s until the 1980s.

Roueché developed his innovative approach to medical writ-

ing at a time when two important transformations were occurring in American medicine: the emergence of clinical epidemiology and the growth of media coverage of medical topics. Roueché was an immensely talented writer and storyteller, and his writings introduced not only laypersons but also future generations of physicians to the art of medicine.

Roueché was born in Kansas City, Missouri, in 1911, to a businessman and his wife. His family and friends recall him as an easygoing, soft-spoken man who loved to read and write. In 1936, he married Katherine Eisenhower, niece of the future president. Roueché worked as a journalist in Kansas City and St. Louis until his articles caught the eye of

William Shawn, editor of the *New Yorker*, who hired him as a staff writer in 1944.

Roueché’s first medical story, probably his most famous piece, occurred by happenstance. He had heard of a group of gravely ill men who had shown up at a New York hospital, blue with cyanosis. The article he wrote about them, “Eleven Blue Men,” published in 1947, described how local health officials deduced the cause of the malady — the inadvertent use of sodium nitrite, in lieu of sodium chloride, to season the oatmeal at the Eclipse Cafeteria in New York’s Bowery district.

“Eleven Blue Men” spawned dozens of other stories over the years, many of which were later collected in books.^{2,3} “The Orange

Man” described a plumber who had turned orange by overeating carrots and tomatoes; “A Pig from Jersey” chronicled an outbreak of trichinosis resulting from the consumption of uncooked pork at a German-American festival; “One of the Lucky Ones” was the account of an unfortunate dry cleaner whose use of carbon tetrachloride as a solvent caused liver failure.

What all these stories had in common were mysterious illnesses or deaths, the causes of which were elucidated by clever detective work. Roueché later likened his pieces to the classic detective stories featuring Sherlock Holmes.⁴ Although the *Journal’s* Clinico-pathological Conferences, featuring doctors attempting to solve tricky cases, dated from 1924, the notion of the medical detective who deduced the causes of daunting outbreaks was a new one. In later years, Roueché would parlay his skill in building curiosity and suspense into a career as a mystery novelist.

Roueché also provided his readers with quick lessons in the history of medicine. For example, one of his stories told the improbable tale of a six-year-old Denver girl who had contracted the plague by touching a dead squirrel. “Few diseases,” Roueché wrote, “have been more portentously explained than plague.”³ Although the plague was a bacterial infection, he added, over time it had been variously attributed to the misalignment of the planets, the wrath of God, and the purported sins of the Jews.

Roueché’s stories held great popular appeal, thanks in part to the growing interest in epidemiology, the study of diseases in populations. The field of epide-

miology had existed for decades, mostly tracking large-scale epidemics such as cholera. But as epidemic diseases waned, attention turned to rare or interesting maladies that affected a single patient or groups of patients. This approach, later dubbed clinical epidemiology, sought to identify possible environmental causes of these small eruptions of disease.

Such investigations were carried out either by epidemiologists who worked for local health departments or by the Communicable Disease Center (CDC, now the Centers for Disease Control and Prevention), founded in 1946 in order to track malaria. By 1951, the CDC had inaugurated the Epidemic Intelligence Service, which sent so-called shoe-leather epidemiologists to tackle tough outbreaks of various diseases throughout the country. These investigators were the heroes of many of Roueché’s early pieces, identifying a new reservoir of rabies in bats, containing an improbable outbreak of the ancient disease smallpox, or tracing several cases of typhoid fever to a sewage pipe clogged by boys playing a game of “wild Indians.”

Roueché became a folk hero in the world of epidemiology. Never before had tracking diseases seemed so captivating. Why had six unmarried black residents of upper Manhattan all died from tetanus? Why did only some of the men who had eaten oatmeal in the Eclipse Cafeteria turn blue? “There is a popular misconception that epidemiology . . . is a stuffy subject,” a CDC official wrote to Roueché by way of an invitation to speak at a conference. He asked Roueché to show the audience that epidemiology was “alive, vibrant and basic to

problem-solving in the health field.”

But epidemiologists were also beginning to tackle questions about chronic diseases. Death rates from cancer and heart disease remained persistently high, and epidemiologists wanted to know why. In 1948, a group of scientists began the Framingham Project, a population-based study that would establish hypertension, high levels of cholesterol, and smoking as risk factors for heart attacks.

Not surprisingly, Roueché expanded his repertoire in the direction of more chronic conditions, which is what led him to write the September 1955 article on the man with periarteritis nodosa, one of numerous diseases then being treated with corticosteroids. The story was entitled “Ten Feet Tall,” which is how the manic protagonist, Bob, clearly felt, even when confronted with a two-hour delay in a barber shop. Roueché quoted Bob, who had spent the entire time talking: “It turned out to be delightful. I don’t know when I’ve spent two more enjoyable hours.”¹ In 1956, “Ten Feet Tall” was made into the movie “Bigger Than Life,” starring James Mason.

As Roueché began to write more about clinical medicine, he broke new ground. Whereas another popular writer, Paul de Kruif, had detailed for the general public the scientific accomplishments of doctors and researchers, Roueché was describing actual cases, treatments rendered, and in the case of cortisone, side effects. Such coverage might have alienated physicians who, in the days before patient autonomy and the Internet, were accustomed to controlling most medical information. But doctors just loved

From "Eleven Blue Men," by Berton Roueché

At about eight o'clock on Monday morning, September 25, 1944, a ragged, aimless old man of eighty-two collapsed on the sidewalk on Dey Street, near the Hudson Terminal. Innumerable people must have noticed him, but he lay there alone for several minutes, dazed, doubled up with abdominal cramps, and in an agony of retching. Then a policeman came along. Until the policeman bent over the old man, he may have supposed that he had just a sick drunk on his hands; wanderers dropped by drink are common in that part of town in the early morning. It was not an opinion that he could have held for long. The old man's nose, lips, ears, and fingers were sky-blue. The policeman went to a telephone and put in an ambulance call to Beekman-Downtown Hospital, half a dozen blocks away. The old man was carried into the emergency room there at eight-thirty. By that time, he was unconscious and the blueness had spread over a large part of his body. The examining physician attributed the old man's morbid color to cyanosis, a condition that usually results from an insufficient supply of oxygen in the blood, and also noted that he was diarrheic and in a severe state of shock. The course of treatment prescribed by the doctor was conventional. It included an instant gastric lavage, heart stimulants, bed rest, and oxygen therapy. Presently, the old man recovered an encouraging, if painful, consciousness and demanded, irascibly and in the name of God, to know what had happened to him. It was a question that, at the moment, nobody could answer with much confidence.

For the immediate record, the doctor made a free-hand diagnosis of carbon-monoxide poisoning — from what source, whether an automobile or a gas pipe, it was, of course, pointless even to guess. Then, because an isolated instance of gas poisoning is something of a rarity in a section of the city as crammed with human beings as downtown Manhattan, he and his colleagues in the emergency room braced themselves for at least a couple more victims. Their foresight was promptly and generously rewarded. A second man was rolled in at ten-twenty-five. Forty minutes later, an ambulance drove up with three more men. At eleven-twenty, two others were brought in. An additional two arrived during the next fifteen minutes. Around noon, still another was admitted. All of these nine men were also elderly and dilapidated, all had been in misery for at least an hour, and all were rigid, cyanotic, and in a state of shock. The entire body of one, a bony, seventy-three-year-old consumptive named John Mitchell, was blue.

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Roueché's stories, particularly his ability to master complicated medical details. "If you have no bit of medical training," one physician wrote about "Ten Feet Tall," "you must have had to do quite a bit of running to get this down in the great shape in which it was presented." "May I compliment you on your remarkable account of the hypomanic attack experienced by the man receiving cortisone," another doctor wrote. "I feel that it portrays more effectively than any textbook the experiences of a disturbed patient."

Did Roueché ever misfire? Not often. One piece that generated controversy was "As Empty as Eve," which appeared in the September 9, 1974, issue of the *New Yorker*. In telling the story of a woman who had had permanent memory loss after treatment with electroconvulsive therapy for depression, Roueché quoted her as saying that her memory lapses made her feel stupid: "It keeps reminding me of how much of myself I've lost."²

Some psychiatrists have cited Roueché's essay as an unfairly negative depiction of electroconvulsive therapy that discouraged its use for severely depressed patients.⁵ Although Roueché never publicly commented on this piece, he probably would have admitted that his individual medical stories were not necessarily representative of all related cases. Despite his ability to communicate medical information, Roueché was foremost a writer, not a scientist.

Still, it was not uncommon for Roueché's stories to wend their way into the curriculums of medical and public health schools. "This is such a lucid description of this disturbance that I am recommending it to the attention of

our medical students,” George L. Engel, of the University of Rochester, wrote of “Ten Feet Tall.” And Frank A. Howard told Roueché that he had assigned his students “Eleven Blue Men,” thereby ensuring that “the second year Harvard men have something interesting to read in the wee hours of the mornings.”

Although it is now routine for

lay publications to print tales of illness for the general public, it was Roueché who pioneered the genre. He died in 1994 at the age of 83, remaining a staff writer at the *New Yorker* until the end.

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