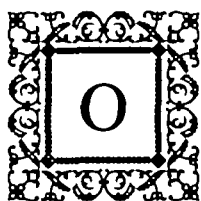


Mary Lincoln's Final Illness: A Medical and Historical Reappraisal

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ON New Year's Day 1882, in New York City, four eminent physicians examined Mary Todd Lincoln in her room at Miller's Hotel, a medical residence for electro- and hydrotherapies. Their findings were despatched in a letter to Congressman William M. Springer of Springfield, Illinois, who entered them into the *Congressional Record* in support of a bill to increase Mrs. Lincoln's annual federal pension from \$3,000 to \$5,000. All four physicians were professors and specialists, and three had contributed substantially to the medical knowledge of the time: Lewis Sayre, an orthopedist; Meredith Clymer, a neurologist; Hermann Knapp, an ophthalmologist; and William Pancoast, a surgeon. Sayre, Mrs. Lincoln's principal consulting physician from 1880 to 1882, was responsible for assembling the team; he knew the others well and could rely on them to formulate a diagnosis that would evoke compassion from a legislature that in the past had been bitterly hostile to their patient and her petition. The bill passed, and was signed into law by President Arthur on 2 February 1882.¹ Five months later Mrs. Lincoln was dead.

Mary Todd Lincoln's life is the stuff of tragic opera. She succeeded

1. *Congressional Record*. Senate, 47th Cong., 1st sess., 16 and 24 January 1882, pp. 401–2, 578; *Congressional Record*. House, 47th Cong., 1st sess., 26, 27 January and 2 February 1882, pp. 652–53, 705–6, 822.

We express our appreciation to Gore Vidal, whose persistent curiosity set us off on this long inquiry. Dan Dixon and Peggy Sinko provided indispensable help in archival searches. Cynthia Myntti, Paul Nagel, Thomas Schwartz, Douglas Wilson, Leonard Wilson, and two anonymous reviewers gave much valuable and valued time examining the manuscript in its successive drafts.

in her singular ambition to be a president's wife only to be vilified as spendthrift, cheat, rebel sympathizer, and mad.² Perusal of the index of Jean Baker's entirely sympathetic biography reveals the complex, larger-than-life character: "ambition . . . anger . . . bereavement . . . debts . . . elegance . . . emotional vulnerability . . . flirtaciousness . . . grudges . . . hostility . . . independence . . . narcissism . . . self-control lacking . . . self-pity . . . special treatment expected . . . unpopularity . . ."³ Three of Mary Lincoln's four sons died prematurely, and she became estranged from her eldest, Robert, when in 1875 he testified to a jury that she was mentally incompetent. Three half-brothers died fighting for the Confederacy. But it was in 1865, just when the promises of peace had descended on the nation, her husband, and their marriage, that she suffered the ultimate devastation by the murder of Abraham Lincoln as she sat beside him. Forced abruptly from her position of power, unable to maintain the high life of privilege, humiliated by the newly revealed story of Ann Rutledge, she wandered from Washington to Chicago to Springfield, then self-exile in Europe, and finally back to Springfield to die, dependent on the kindness of strangers and kin. In the last decade of her life she suffered intense pain from a progressive and fatal disease, one that was misinterpreted as madness. It is the nature of that disease and her physicians' quandary in making the diagnosis that we explore in this paper.

THE POLITICS OF THE PENSION

The first attempts in 1869–1870 to secure a small \$3000 annuity for Mrs. Lincoln went badly, taking over a year and a half to pass Congress despite the best efforts of admirers such as Massachusetts Senator Charles Sumner.⁴ The opposition was based in part on fiscal conservatism, part on reluctance to change federal policy of awarding pensions only to the widows of soldiers, and part on doubt as to whether Mrs. Lincoln was in fact so needy; she had inherited \$37,000 from her husband's estate, and Congress had granted her \$22,000 of the president's unpaid salary from 1865. Behind such commonplace concerns there also lay an unspoken allegation against her character. The special

2. Jean H. Baker, *Mary Todd Lincoln. A Biography* (New York: W.W. Norton and Company, 1987), p. 85.

3. *Ibid.*, pp. 420–22.

4. F. Lauriston Bullard, "Mrs. Lincoln's pension," *Lincoln Herald*, 1947, 49, 22–27.

Senate committee charged with looking into the matter reported out all the objections, but added, "There are some other facts bearing upon this subject which it is probably not needful to refer to, but which are generally known and the evidence to part of which is in possession of the committee."⁵ Senator Richard Yates, Republican of Illinois, brought the allegation as close to the surface as possible on the floor of the Senate:

There are recollections and memories, sad and silent and deep, that I will not recall publicly, which induce me to vote against this bill. Amid all the perils of life, amid its devastation, amid good and evil report, a woman should be true to her husband. . . . I shall not go into details. Mr. Lincoln's memory is sweet to me. God Almighty bless the name and fame of Abraham Lincoln!"⁶

Mary Lincoln had already been publicly denounced for bribery, spying, extortion, profligacy, and stealing,⁷ so the only possible accusation left was adultery.

Contemporary gossip about her unfaithfulness was plentiful.⁸ Abraham Lincoln's biographer, William H. Herndon, reported to his co-author Jesse Weik, "You know that Mrs. Lincoln is charged with unchastity and the like."⁹ Even an admirer, Mrs. Lincoln's aide-de-camp Benjamin Brown French, wrote in his diary, "She is a most singular woman, and it is well for the nation that she is no longer in the White House. It is not proper that I should write down, even here, all I know!"¹⁰ In December 1881 and January 1882 the same coded words could be heard when the matter of an increase in the pension to \$5000 per annum came up in Congress. Senator John Ingalls of Kansas opposed the bill: "From information in my possession, which I do not care to communicate to the Senate, I am satisfied

5. *Ibid.*, p. 24.

6. *The Congressional Globe: Containing the Debates and Proceedings of the Second Session Forty-First Congress . . .*, F. and J. Rives and George A. Bailey, eds. (Washington, D.C.: Office of the Congressional Globe, 1870), 9 July 1870, p. 5397.

7. Baker, (n. 2), *Mary Todd Lincoln*, see index under "Confederate sympathies charged to," "criticism of," "unpopularity of," pp. 420-22.

8. Michael Burlingame, *The Inner World of Abraham Lincoln* (Urbana: University of Illinois Press, 1994), pp. 291-92. Baker, (n. 2) *Mary Todd Lincoln*, p. 184.

9. Emanuel Hertz, *The Hidden Lincoln. From the Letters and Papers of William H. Herndon* (New York: Viking Press, 1938), p. 220.

10. Benjamin Brown French, *Witness to the Young Republic. A Yankee's Journal, 1828-1870*, eds. Donald B. Cole and John J. McDonough (Hanover, N.H.: University Press of New England, 1989), p. 479.

this measure is not one that ought to pass for the relief of Mrs. Lincoln."¹¹ The Pension Committee reporting on the bill seemed to distinguish between Mrs. Lincoln's financial and personal matters: "While the committee have made as close inquiry into her pecuniary affairs as they have deemed to be consistent with a decent respect for Mrs. Lincoln and for the memory of the great dead . . . they would not be understood to have prosecuted their search into her private affairs with the minute diligence of a detective."¹² If any sympathy was to be engendered on behalf of Mrs. Lincoln, it would have to come from the medical examination. The physicians' report was, therefore, crucial to passage of the pension bill.

For Mary Lincoln an increase in pension was not simply a pecuniary matter: she had income from her bonds, about \$8000 a year, although not enough to live grandly. Money would also be a balm to her "shriveled self-esteem," showing respect for the widow of Abraham Lincoln.¹³ True to form, Mary Lincoln lobbied for her increase, even from the confines of her medical hotel, through people who were susceptible to her still considerable charm and persuasiveness.

The impetus for the 1882 bill seems to have originated with Robert Todd Lincoln, Mary's only surviving son, who had effected some reconciliation with his mother after the birth of a granddaughter he named for her. Robert had achieved a successful corporate law practice. In February 1881 he was appointed Secretary of War by President Garfield, who was assassinated a few months later. Although President Chester Arthur eventually removed every one of Garfield's cabinet officers but Robert, his tenure remained uncertain well into 1882.¹⁴ The last thing Robert needed was another embarrassing public quarrel with his mother. In 1867, for instance, he was enraged by his mother's clumsy and failed attempt to raise money by selling her old clothing and jewelry in a public showroom.¹⁵ In 1875, after Mary evinced some truly bizarre behavior (to which we will return), Robert brought

11. *Congressional Record*. Senate, 47th Cong., 1st sess., 15 December 1881, p. 136.

12. *Ibid.*, Senator Henry W. Blair, New Hampshire, 24 January 1882, p. 578. An allegation of embezzlement, the "pecuniary affairs," was made privately by Senator David Davis who presided over the Senate when the pension bill came up in 1881-1882. See "New evidence surfaces against Mrs. Honest Abe," *Illinois State Journal-Register*, 20 April 1994, p. 1.

13. Baker, (n. 2) *Mary Todd Lincoln*, "pecuniary," pp. 294, 316, 351; "self-esteem," "persuasion," p. 367.

14. John S. Goff, *Robert Todd Lincoln. A Man in His Own Right* (Norman: University of Oklahoma Press, 1969), pp. 120-23.

15. *Ibid.*, p. 99.

her to court in the well-publicized "insanity trial," and she was ordered into a private mental asylum.¹⁶

A real issue in 1875 was her habit of carrying tens of thousand of dollars in bills and negotiable securities pinned to her undergarments; this coupled with her manic buying sprees made Robert fear the worst.¹⁷ People took sides in the long-running dispute between mother and son. Battles were fought in the newspapers over whether her confinement was justified, and again in November 1881 over whether she was well off or nearly bankrupt, with the inference that the well-to-do son was or was not properly attentive to his sick mother's needs.¹⁸ Modern biographers also account Robert either as a caring son of a deeply troubled and mortifyingly embarrassing mother, forced against his intensely private nature to testify openly against her; or as an ungrateful opportunist concerned only to protect his inheritance.¹⁹

Robert worked behind the scenes to have his mother's pension increased, surely hoping this would avert a new public furor. According to Mary Lincoln's physician Dr. Sayre, in a 23 November 1881 interview with the *New York Times*, the effort began in mid-October when Robert's wife, Mary Harlan Lincoln, spoke to the influential financier Cyrus Field at Yorktown Heights in New York. The centennial of the surrender of the British was being held there on 17–19 October, some ten miles from Field's estate in Irvington; Robert Lincoln and his wife attended, along with President Arthur and other notables.²⁰ Field was just the man to approach. The previous summer

16. Mark E. Neely and R. Gerald McMurty, *The Insanity File: The Case of Mary Todd Lincoln* (Carbondale: Southern Illinois University Press, 1986). The entire story is richly told here in the context of nineteenth-century laws on commitment.

17. *Ibid.*, p. 101.

18. Neely and McMurty, (n. 16) *Insanity File*, pp. 16, 73. Compare these salvos three days apart: "MRS. LINCOLN IN WANT. SICK AND UNABLE TO OBTAIN MUCH-NEEDED ATTENTIONS," (*New York Times*, 23 November 1881), versus "it is absurd to say that she is in a state of suffering on an income of over \$5,000 per year. . . . The case is a sad one, but is so through the unfortunate mental hallucinations of the principal subject of it, rather than from any shortcomings or faults of Mr. Lincoln's friends," ("Mrs. Lincoln's Pecuniary Condition," *Daily Illinois State Journal*, 26 November 1881, editorial page).

19. Baker, (n. 2) *Mary Todd Lincoln*, accuses Robert of "duplicitly" in his mother's financial affairs (pp. 279–80, 317, 321, 325) and of railroading her into the asylum (pp. 323–25); in the final paragraph of the biography Baker writes: "Two years later Robert Lincoln inherited his mother's money. . . . and so was enriched by \$84,035" (p. 369). Neely and McMurty (n. 16) *Insanity File*, are more solicitous of Robert's concerns over his mother's aberrant behavior, as is Goff (n. 14) *Robert Todd Lincoln*.

20. "On the Way to the Festival . . .," *New York Times*, 18 October 1881, p. 1, col. 4; "Laying the Cornerstone," *ibid.*, 19 October, p. 1, col. 7.

he had raised more than \$350,000 in personal subscriptions for the family of the mortally wounded President Garfield, and in 1882 he would be given the rare privilege of lifetime access to the floor of Congress.²¹ The quiet diplomacy worked. Field announced on 22 November that he would "induce Congress to increase Mrs. Lincoln's pension to \$5,000."²² Arrangements for a medical examination were probably also negotiated with Dr. Sayre by Robert, who had been visiting his mother in her New York medical hotel every two or three weeks.²³ Dr. Sayre revealed to the *New York Times* on 19 November, "that some eminent oculists of this City will confer in a few days, and examine her eyes with a view to determining whether treatment will be of benefit."²⁴

Despite his efforts, Robert could not head off the ugly salvos in the press, and the first to fire was Mrs. Lincoln through the words of Dr. Sayre in his 23 November *New York Times* interview: "She is absolutely driven to ask aid from somebody, and I believe that Congress is the proper place to apply. The wife of Abraham Lincoln should not want for proper care during her sickness."²⁵ The article alarmed Robert's friends, who imputed darker motives, that it was part of a plot to remove him from high office.²⁶ It also perturbed Illinois Congressman William Springer who on 5 December wrote to Mary Lincoln's brother-in-law and eminent Springfield citizen, Ninian Edwards:

My Dear Friend = The enclosed article from the New York Times is going out rounds of the press. It explains itself—I wish to say to you and to Mrs. Lincoln's friends in Springfield that I am ready and anxious to serve you in this matter to the extent of my ability. If an increase of her pension is desired the request, it seems to me, should come from her immediate friends and relations; through their representative in Congress. If you will consult with Major Stuart, Mssrs. Edwards and Brown and C.M. Smith—and will state to me that in view of her helpless condition ten thousand a year would be required to make her perfectly comfortable, as far as money can do it, I will insist upon her pension being increased accordingly. . . . Please

21. Isabella F. Judson, *Cyrus W. Field. His Life and Work (1819–1892)* (New York: Harper Brothers Publishers, 1896), pp. 308–9.

22. *New York Times*, (n. 18).

23. "Mrs. Lincoln . . .," *Illinois State Journal*, 30 November 1881, p. 1, col. 5.

24. "Mrs. Lincoln Not Blind . . .," *New York Times*, 19 November 1881, p. 8, col. 1.

25. *New York Times*, (n. 18).

26. *Daily Illinois State Journal*, (n. 18).

communicate your views and those of friends I have suggested and others, and I will at once move in the matter. . . . If the article enclosed correctly states Mrs. Lincoln's condition, please return it to me, and I will use it in the House."²⁷

On 30 December, Springer again wrote Edwards:

My Dear Sir: Your letter of 9th was duly recd. Rev. Mr. Miner [Mary Lincoln's courier and go-between], formerly of Springfield, called on me a few days ago, and gave me full particulars of Mrs. Lincoln's condition. He returned to Princeton & will go to New York & procure statements from Mrs. Lincoln's physicians & attendants & forward to me. As soon as the Committee for auditing the expenses of Prest. Garfield's sickness, and for recommending an allowance to Mrs. Garfield shall become reported, it will be an auspicious time to bring forward a measure for the relief of Mrs. Lincoln — I will do this at the proper time, after consulting Judge [David] Davis, & others here.²⁸

Instead, the bill for Mrs. Lincoln's relief preceded that for Lucretia Garfield (which by then was accompanied by requests concerning Mrs. John Tyler and Mrs. James Polk). The Lincoln bill passed both houses of Congress on 24 and 26 January, while the latter bill was not approved until 27 and 29 March.²⁹ The dramatic findings in the doctors' examination lent credibility and urgency to the pursuit. At the same time, the physicians deftly avoided any diagnostic implications that would have revived old hatreds.³⁰

WHAT THE PHYSICIANS FOUND

Nothing involving Mary Lincoln could be free from politics or sensational gossip, her illness and the physicians' examination included. The letter sent to Congressman Springer is given as follows:

New York, January 1, 1882.

Dear Sir: We have this day made at your request a careful medical examination of Mrs. Mary T. Lincoln, widow of the late President Abraham Lincoln, at present residing at No. 39 West Twenty sixth street, this city.

27. Letters from manuscript collection of William M. Springer, Box 1, Folder 4, Chicago Historical Society.

28. Ibid.

29. *Congressional Record*, (n. 11), pp. 578, 705–6, 2281, 2374.

30. Ibid., p. 653: "Mr. SPRINGER. If any gentlemen in the House desires any further explanation of the necessity for the passage of this bill I will make it. (Cries of 'Oh, no; it is not necessary.')

We find that Mrs. Lincoln is suffering from chronic inflammation of the spinal cord, chronic disease of the kidneys, and commencing cataract of both eyes.

The disorder of the spinal cord is the consequence of an injury received some time since and has resulted in considerable loss of power of both lower extremities so as to lessen their use and to render walking without assistance very unsafe, and going unaided down stairs impossible. The nature of the spinal trouble is progressive and will end in paralysis of the lower extremities. Connected with the spinal disease and one of its evidences is the reflex paralysis of the iris of the eye, and the reduction of the sight to one-tenth natural standard, together with much narrowing of the field of vision. The sight will gradually grow worse.

There is no probability that there will be any improvement in Mrs. Lincoln's condition, considering her age and the nature of her disease. She is now quite helpless, unable to walk with safety without the aid of an attendant, or indeed to help herself to any extent. She requires the continued services of a competent nurse, and also constant medical attention.

We are, very respectfully, your obedient servants,

Lewis A. Sayre, M.D.
285 Fifth avenue, New York,

Meredith Clymer, M.D.
65 West Thirty-eighth street, New York City,

Dr. H. Knapp
25 West Twenty-fourth street, New York City,

William H. Pancoast, M.D.
1100 Walnut street, Philadelphia.

Hon. Wm. M. Springer
House of Representatives, Washington, D.C.³¹

The key phrases in the physicians' letter revealed their understanding of Mrs. Lincoln's illness: "progressive . . . chronic inflammation of the spinal cord . . . connected with the spinal disease . . . is the reflex paralysis of the iris of the eye . . . loss of power of both lower extremities . . . going unaided downstairs impossible . . . reduction of sight." Here they adequately described the condition known as *tabes dorsalis*, also known descriptively from the typical uncoordinated gait

31. Ibid.

as locomotor ataxia, the most common form of chronic spinal cord disease of the time.³² This complex of signs and symptoms was first recognized as originating in the spinal cord in 1817, its association with blindness noted in 1827, and classically described by Moritz Romberg in 1846 and 1853.³³ Meredith Clymer, one of the examining physicians, had also written an excellent description of the condition.³⁴ The following is the complete complex as known today:

lancinating pain in many parts of the body
incoordination on walking especially in the dark and down stairs
relative preservation of muscle power, at least in the early stages
progressive narrowing of vision due to atrophy of the optic nerve
pupils failing to constrict in light but constricting normally on close-up vision
weakness or paralysis of external eye muscles
loss of knee jerk reflex
ulcers on soles of feet
urinary incontinence
painless swelling of joints
progressive, incurable.

Not all signs and symptoms need be present at any one time, and many patients have only a partial complex. The eye signs may precede others by several years.³⁵

When the physicians stated that, "Connected with the spinal disease and one of its evidences is the reflex paralysis of the iris of the eye,"³⁶ they were describing a classic finding in 1869 by the Scottish

32. William R. Gowers, *A Manual of Diseases of the Nervous System* (Philadelphia: P. Blakiston, Son and Co., 1888), p. 285; W.H. Erb, "Die Aetiologie der Tabes," *Sammlung Klinische Vorträge*, 1892, n.f. 53, 515-42, p. 515.

33. Lawrence C. McHenry, *Garrison's History of Neurology. Revised and Enlarged with a Bibliography of Classical, Original and Standard Works in Neurology* (Springfield: Charles C Thomas, 1964), pp. 275-78.

34. M. Clymer, "A lecture on some points in the clinical history and pathogeny of locomotor ataxia," *Med. Rec.*, 1870, 4, 532-37.

35. Charles H. Fagge and Philip H. Pye-Smith, *Textbook of the Principles and Practice of Medicine*, 3rd ed. (London: J. and A. Churchill, 1891), pp. 525-27.

36. *Congressional Record*, (n. 30), p. 653. We believe the singular noun is a transcription or typographical error as an ophthalmologist would certainly indicate which eye was affected if only one. The original letter, presumably hand-written, could not be found either in the Congressional Archives or in collections of Congressman Springer's correspondence. Paralysis of light reflex in just one eye may rarely be found in tabes dorsalis (see [n. 41], p. 221).

ophthalmologist Douglas Argyll Robertson, whose eponymic sign, the Argyll Robertson pupil, is recalled through its mnemonic: ARP—Accommodation Reflex Present; PRA—Pupillary Reflex Absent. Argyll Robertson noted in five patients, four of whom had classic locomotor ataxia, that the pupil did not constrict when a light was beamed at the eye but did constrict when the person was forced to examine an object close up.³⁷ It had been known for well over a century that traumatic injury to the cervical spinal cord could produce a small pupil, though one still reactive to light, a condition known as “spinal myosis,” due to damage to certain pupil-dilating nerves arising from this area.³⁸ A well-known instance of such an injury occurred in a soldier shot in the neck during the Civil War, whose pupils became small but were still reactive to light.³⁹ Argyll Robertson had to puzzle out a complicated spinal cord physiology that affected one kind of pupillary constriction but not the other. The problem was simplified by one of Mary Lincoln’s examining physicians, Hermann Knapp, while on a visit to Argyll Robertson’s laboratory in 1871.⁴⁰ He showed experimentally in rabbits that transecting the cord high in the neck gave small pupils that maintained their reaction to light. Knapp thus proved that the Argyll Robertson pupil had to originate from damage above the spinal cord, probably somewhere within the brain.

By the mid-1870s it was noted that the Argyll Robertson pupil was strongly associated with tabes dorsalis and an important clue to the diagnosis. Unlike the small pupil in cervical cord injury, the Argyll Robertson pupil was often found to be comparatively large in artificial light or daylight owing to its failure to constrict.⁴¹ A wide variety of other eye signs were also noted with tabes dorsalis indicating

37. D. Argyll Robertson, “On an interesting series of eye-symptoms in a case of spinal disease with remarks on the action of belladonna on the iris, etc.,” *Edinburgh Med. J.*, 1869, 14, 696–708. D. Argyll Robertson, “Four cases of spinal myosis; with remarks on the action of light on the pupil,” *Edinburgh Med. J.*, 1869, 15, 487–93.

38. C.W. Rucker, “Knowledge of the pupillary reactions in Argyll Robertson’s time,” in Bernard Schwartz, ed., *Syphilis and the Eye* (Baltimore, Md.: Williams and Wilkins Company, 1970), pp. 162–71.

39. Silas W. Mitchell, *Injuries of Nerves and Their Consequences* (Philadelphia: J.B. Lippincott Company, 1872), pp. 318–21.

40. H.J. Knapp, “Notes on ophthalmological and otological subjects made during a journey through Europe,” *Arch. Ophthalmol. Otol.*, 1871, 2, 167–93.

41. I. E. Loewenfeld, “The Argyll Robertson pupil, 1869–1969. A critical survey of the literature,” in Bernard Schwartz, ed., *Syphilis and the Eye* (Baltimore, Md.: Williams and Wilkins Co., 1970), pp. 199–299.

involvement of the brain, among them, paralysis of the external eye muscles whose nerves originate in the brain and atrophy of the optic nerve leading directly from the retina to the brain.⁴² Optic atrophy causes narrowing of the field of vision and eventual blindness, and by 1877 one author asserted, "Everyone who is at all familiar with ophthalmology knows that it is not at all uncommon for amaurosis to be the first symptom of locomotor ataxy."⁴³ Before seeing Mrs. Lincoln, Dr. Knapp had consulted on at least one other such case.⁴⁴ The evidence by the end of 1881, therefore, was overwhelming that *tabes dorsalis* (locomotor ataxia) involved not just the spinal cord but affected different areas of the brain as well.

SYMPTOMS OF *TABES DORSALIS* IN MARY LINCOLN'S OWN WORDS AND WRITINGS

Mary Lincoln left behind much evidence to support the examining physicians' findings. Consider first the typical lightning or lancinating pain of *tabes dorsalis*, eloquently described in an 1891 textbook of medicine:

These [pains] may either be of a stabbing or boring character . . . or they may be like flashes of lightning or electric shocks shooting down along the course of a nerve. . . . They last but an instant and return again and again during a period of from four to eight days, after which they may disappear altogether for a fortnight, or even for some months They are often called "neuralgic" or "rheumatic" They may go on for five, ten, or fifteen years, before any other symptoms show themselves, and they often persist throughout the whole course of the illness.⁴⁵

Sir William Osler's classic textbook of medicine notes that the lightning pains may also be accompanied by a hot, burning feeling.⁴⁶ In the course of two hostile interviews reported in the *New York Times* in 1881, Mrs. Lincoln was cited derisively as saying she was being "cut to pieces by knives. . . . being all hacked to pieces by knives; just feel the gash in my shoulder" and "I'm on fire, burning up; just

42. J. Hughlings-Jackson, "On eye symptoms in locomotor ataxy," *Trans. Ophthalmol. Soc. U.K.*, 1881, 1, 139-54.

43. R. Atkinson, "Case of locomotor ataxy with unusual visual trouble," *Med. Times Gazette*, 1877, 1, 639.

44. A.D. Rockwell, "Eye symptoms in locomotor ataxy," *Med. Rec.*, 1881, 19, 260-61.

45. Fagge and Pye-Smith, (n. 35) *Principles*, p. 528.

46. William Osler, *The Principles and Practice of Medicine* (New York: D. Appleton and Company, 1892), p. 842.

feel me and see how hot I am," when, in fact, said the correspondents, no wound or elevated temperature could be detected.⁴⁷ The physicians' letter proposed that Mrs. Lincoln's neurological illness began as a consequence of a fall, which took place in December 1879. Her own statements suggest that the lightning pains began as much as ten years earlier. She had suffered from typical migraine headaches perhaps from 1840 on,⁴⁸ but in 1869, for the first time, she also mentioned pain in her limbs and spine:

13 November — I have been suffering for three days, with neuralgic headaches, pain in my limbs &c. . . . 14 November — *To day*, my wrists even, pain with neuralgia 16 December — I passed a sleepless, miserable night . . . with great & burning pain in my spine. . . . 2 January 1870 — Today, I am suffering so much with my back—at times I am racked with pain . . . such pain in all my limbs. . . . 11 February — A fearful cold, appeared to settle in my spine & I was unable to sit up, with the sharp, burning agony, in my back. I now have a plaster from my shoulders down the whole, extent of the spine. . . . The Dr says, this present trouble, arises more from a distressed agitated mind, than a real local cause, but says of course there is a *great* tendency to spinal disease.⁴⁹

After a respite from such symptoms, Mrs. Lincoln endured a prolonged episode of pain and was confined to her room for several months.⁵⁰ Dr. Willis Danforth, a homeopathic surgeon in Chicago,⁵¹ began to visit Mrs. Lincoln in November 1873 and regularly thereafter for nearly a year. He later testified at her 1875 "insanity trial" (as paraphrased by a reporter):

She seemed possessed with the idea that some one was working on her head, taking wires out of her eyes (particularly the left one), at times taking bones out of her cheeks and face, and detaching steel springs from her jaw bones . . . at other times she imagined her scalp was being lifted by the same invisible power and placed back again . . . she did not often experience

47. "Mrs. Lincoln's Health . . .," *New York Times*, 22 July 1881, p. 3, col. 6; "Mrs. Abraham Lincoln . . .," *ibid.*, 4 August 1881, p. 3, col. 5.

48. Justin G. Turner and Linda L. Turner, *Mary Lincoln. Her Life and Letters* (New York: Alfred A. Knopf, 1972), pp. 36, 176, 408–9.

49. *Ibid.*, pp. 522–24, 527, 534–35, 539–40, 546 (emphases in original).

50. "Clouded Reason . . .," *Chicago Tribune*, 20 May 1875, p. 1, col. 3. See also "Mrs. Abraham Lincoln," *New York Times*, 18 October 1874, p. 9, col. 2: "She has been confined to her room for the past five months by a severe illness, from which she is now just recovering."

51. Egbert Cleave, *Cleave's Biographical Cyclopaedia of Homeopathic Physicians and Surgeons* (Philadelphia: Galaxy Publishing Co., 1873), pp. 245–46.

pain, but at times was sensitive of a cutting sensation; this continued for some time . . . he at length discontinued his visits, the patient having improved in health, and did not see her again for several weeks; saw her again in March, 1874; continued to visit her up to September, most of the time daily . . . a general indisposition and debility appeared to pervade her system—the same condition of affairs which he had noticed in his first visits, cutting, scraping, and removing bones from her face and wires from her eyes.⁵²

Danforth's testimony at Mary Lincoln's trial helped convince jurors that she was incompetent to handle her financial affairs. But compare her colorful imagery with clinical descriptions of the pain of *tabes dorsalis* from two modern textbooks of neurology:

The lancinating or lightning pains (present in over 90 percent of cases) are, as their name implies, sharp, stabbing, and brief, like a flash of lightning. . . . They may come in bouts lasting several hours or days. . . . They are more frequent in the legs than elsewhere, but roam over the body from face to feet, sometimes playing persistently on one spot "like the repeated twanging of a fiddle string."

Patients verbalize these sensations in simile and metaphor, e.g. "As if my flesh were pierced with a hot needle. . . . like your bones being crushed."⁵³

We may also trace Mary Lincoln's difficulties with vision as far back as 1872 and to events that suggested madness. She had introduced gas lighting to her house in Springfield,⁵⁴ and again in the White House,⁵⁵ but in 1872 her nurse said Mary Lincoln "thought gas was an invention of the devil and would have nothing but candles in her room. At other times she insisted on the shades being drawn and the room kept perfectly dark."⁵⁶ Springfield physician Thomas W. Dresser, son of Reverend Charles Dresser who had married the Lincolns,⁵⁷ noted in 1889 that,

Among the peculiarities alluded to, one of the most singular was the habit she had during the last year or so of her life of immuring herself in a

52. "Mrs. Lincoln's Insanity . . .," *Illinois State Register*, 21 May 1875, p.1, col. 1.

53. Raymond D. Adams and Maurice Victor, *Principles of Neurology*, 5th ed. (New York: McGraw Hill, 1993), p. 625; H. Houston Merritt, Raymond D. Adams, and Harry C. Solomon, *Neurosyphilis* (New York: Oxford University Press, 1946), p. 247.

54. Ruth P. Randall, *Lincoln's Sons* (Boston: Little, Brown and Co., 1955), p. 86.

55. Ishbel Ross, *The President's Wife Mary Todd Lincoln. A Biography* (New York: GP Putnam's Sons, 1973), p. 127.

56. E. Foy and A. E. Harlow, "Clowning through life," *Collier's Weekly*, 25 December 1926, pp. 15–16, 30.

57. J.T. Hickey, "A family album. The Dressers of Springfield," *J. Ill. State Hist. Soc.*, 1982, 75, 309–20.

perfectly dark room and, for light, using a small candle-light, even when the sun was shining bright out-of-doors. No urging would induce her to go out into the fresh air.⁵⁸

Compare these observations to the description of the visual problems in *tabes dorsalis* in the 1891 textbook: "The defects of vision are commonly worse in bright light, so that the patient sees better after sunset."⁵⁹ The simplest explanation for Mary Lincoln's aversion is that she had a large Argyll Robertson pupil, unreactive to light, and thus could not tolerate any glare. Failure of sight came only near the end of her life, as shown by handwriting samples in which her writing becomes quite large (Fig. 1).

Mary Lincoln very likely had ataxia with relative preservation of motor power. Locomotor ataxia is caused by degeneration of that portion of the spinal cord that controls sensation. Thus persons afflicted cannot feel where their feet are. Asked to stand with eyes closed, the patient sways violently and falls over (Romberg's sign). On walking, the patient tends to lift the foot in an exaggerated manner, bringing it down flat with a stamp. As the classic textbooks inform us: "This would make walking downstairs especially troublesome."⁶⁰ "The use of a stick, or leaning upon the arm of a friend, has an extraordinary effect in steadying his movements."⁶¹ Mrs. Lincoln's examining physicians noted exactly this combination, while the hostile press remarked cynically that she professed "to be unable to even go down stairs" although she *could* walk.⁶² Her letters in the spring and summer of 1880 to her grand-nephew indicate that it was probably not so much loss of power that affected her walking but considerable back pain. Mrs. Lincoln was able to walk, albeit with assistance, even up to the day before her death.⁶³

The question is often asked whether Mary Lincoln really was insane. Given the wide spectrum of classifiable mental and character

58. T.W. Dresser, letter, 3 January 1889, in William H. Herndon and Jesse W. Weik, *Herndon's Lincoln: The True Story of a Great Life*. . . (Chicago: Belford-Clarke Co., 1890), vol. 3, 434-35n. See also *New York Times*, 22 July 1881 (n. 47): "In the afternoon it has been Mrs. Lincoln's habit to darken her room as much as possible. She has declined to use gas except when visitors called, and has preferred to obtain what little light she needed from ordinary candles, or from tapers floating in water."

59. Fagge and Pye-Smith, (n. 35) *Principles*, p. 529.

60. Osler, (n. 46) *Principles*, pp. 843, 917.

61. Fagge and Pye-Smith, (n. 35) *Principles*, p. 525.

62. *New York Times*, 22 July 1881, (n. 47).

63. "Obituary . . .," *Chicago Tribune*, 17 July 1882, p. 2, col. 4.

A

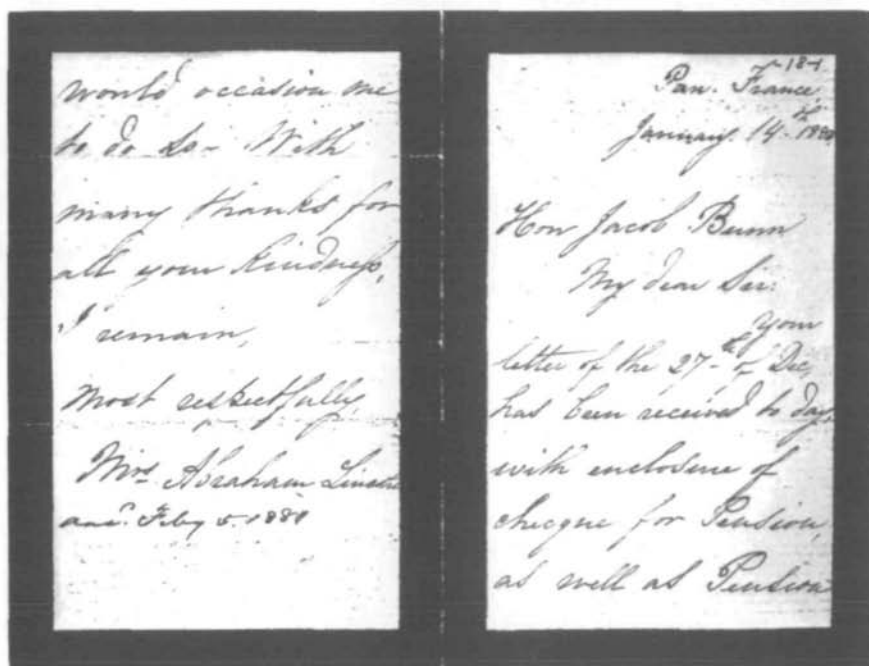


Fig. 1. Letters written by Mary Lincoln: first and last pages of 14 January 1880 and all three pages of 21 March 1882, indicating deterioration of eyesight (courtesy and with permission of the Illinois State Historical Library, Old State Capitol Building, Springfield).

(continued)

disorders, the question has no meaning; in any case, no global diagnosis is feasible only from the historical data. Symptoms imputed as insanity at her trial clearly had their origin in the organic disease of *tabes dorsalis*. The bizarre behavior in 1875 leading to hospitalization, with elements of acute anxiety, insomnia, and delusions,⁶⁴ most resembles post-traumatic stress disorder,⁶⁵ coinciding with the tenth anniversary of her husband's murder. Lincoln was shot on Good Friday, which in 1875 fell on 26 March. Mary Lincoln's acute episode began in

64. *Chicago Tribune* (n. 50).

65. *Diagnostic and Statistical Manual of Mental Disorders—DSM-IV*, 4th ed. (Washington, D.C.: American Psychiatric Association, 1994), pp. 424–29.

B

GRAND CENTRAL HOTEL

New York, March 21st 1882.

My Dear Levis:

May I
request you to have a
supervision over a
box containing an
invalid's Chair &
a smaller box
also a very small
package of Medicine
I leave here tomorrow

Fig. 1. Continued.

C

GRAND CENTRAL HOTEL

New York, _____ 188

2

Wednesday evening
 at 5 1/2 - 6 o'clock for
 Springfield - I find
 that I must rest
 from the Electric
 Baths for a few
 weeks - I go west
 by way of Hudson
 River Railroad.

Fig. 1. Continued.

(continued)

D
 Buffalo, Cleveland
 Detroit & Toledo
 Arriving at Decatur
 before Daylight
 Friday morning
 and Springfield
 at 7 o'clock in
 the morning. - I dread
 the journey greatly,
 with my limbs
 still in so paralyzed
 a state -

Very truly yours
 Wm. Lusk

Fig. 1. Continued.

early March and peaked on 1 April.⁶⁶ She was released from the asylum after less than four months. In a second trial in 1876, unopposed by Robert, the jury declared her "restored to reason."⁶⁷

THE DOCTORS' DILEMMA: CAUSES OF TABES DORSALIS
AS KNOWN AT THE END OF 1881

Up to the mid-1800s the principal causes of tabes dorsalis were thought to be sleeping on the cold ground and sexual excess, explaining perhaps why soldiers seemed so susceptible to the disease.⁶⁸ Guillaume Duchenne, the great French neurologist, was the first to suggest, in his classic 1858-1859 monograph, *De l'Ataxie locomotrice progressive*, that locomotor ataxia could develop one to two decades after a bout of syphilis.⁶⁹ From the mid-1870s up to the time Mrs. Lincoln was examined by Drs. Sayre, Clymer, Knapp, and Pancoast, statistical evidence began to be published by a veritable Who's Who of world neurology that demonstrated the frequency of this association.⁷⁰ The statistical association with a past episode of syphilis in their experience amounted to between fifty and ninety percent of cases of tabes dorsalis. Wilhelm Heinrich Erb's presentation to the Seventh International Medical Congress in August 1881 was seminal as he provided a rudimentary case-control study, comparing the incidence of a history of syphilis in tabes dorsalis to that in other neurological diseases, finding eighty nine percent in the former and twenty three percent in the latter. Sir William Gowers confirmed Erb's findings at the congress. Erb has been called "the father of neurology" and Gowers "one of the foremost neurologists of the nineteenth century."⁷¹ Of great interest to the present study is that both Sayre and

66. Neely and McMurty, (n. 16) *Insanity File*, p. 8.

67. *Ibid.*, p. 101.

68. Erb, (n. 32), p. 516.

69. Adams and Victor, (n. 53) *Principles of Neurology*, p. 625.

70. J.A. Fournier, *De l'ataxie locomotrice d'origine syphilitique*, *Annale de. Dermatologie et Syphilitique* (Paris: G. Masson, 1876). J. Hutchinson, "Notes on the symptom significance of different states of the pupil," *Brain*, 1878-1879, 1, 1-13, 155-67, 454-66. W.R. Gowers, "Syphilitic neuroses," *Br. Med. J.*, 1879, 1, 303-5, "The diagnosis of disease of the spinal cord," *Med. Times Gazette*, 1879, ii, pp. 524-26, 575-77, 657-59, 683-85, "Syphilis and locomotor ataxy," *Lancet*, 1881, i, 94-95. J. Althaus, "Note on the relations between syphilis and locomotor ataxy," *Lancet*, 1881, ii, 497-98. W.H. Erb, "Ueber die atologische Bedeutung der Syphilis für die Tabes dorsalis," in *Transactions of the International Medical Congress Seventh Session, London, August 2d to 9th, 1881* (London: J.W. Kolckmann, 1881), vol. 2, 32-42.

71. McHenry, (n. 33), *Garrison's History*, pp. 298, 313.

Knapp attended the congress, and although each was presenting in his own section,⁷² word of Erb's paper on a major disease of the spinal cord may well have reached them a few months before they examined Mrs. Lincoln. Nonetheless, until specific tests for syphilis were developed (i.e., the Wasserman in 1906 and detection of the organism in brain tissue from a case of neurosyphilis in 1913),⁷³ doubt could still be reasonably expressed whether syphilis actually caused tabes dorsalis or simply predisposed to it, and whether it preceded nearly all cases or only some 80 to 90 percent.

Herndon believed Mary Todd Lincoln had syphilis, as he wrote in 1886 to his co-author Weik about the premature deaths of three of her sons: "Poor boys, they are dead now and gone! I should like to know one thing and that is: What caused the death of these children? I have an opinion which I shall never state to anyone."⁷⁴ Five years later Herndon reluctantly revealed to Weik that Abraham Lincoln had admitted to contracting syphilis: "about the year 1835-36 Mr. Lincoln went to Beardstown and during a devilish passion had connection with a girl and caught the disease. Lincoln told me this."⁷⁵ Herndon explained further that Lincoln had consulted the famous Dr. Daniel Drake in December 1840 or January 1841, concerned about the syphilis that "hung to him."⁷⁶

Syphilis was remarkably common in the nineteenth century. A singular study published in 1954 informs most of what we know about the natural course of this disease. Nearly 1000 patients with syphilis diagnosed at the turn of the century in Norway were traced through medical records and interviews.⁷⁷ The study revealed the three stages of syphilis when left untreated. The primary stage, the chancre or venereal sore, erupts from days to three months after exposure. Untreated, the infectious sore heals within six weeks and is soon followed in one-third of patients by secondary syphilis, a rash all over the body and on mucous membranes, at which time the

72. *Transactions of the International Medical Congress Seventh Session, London, August 2d to 9th, 1881* (London: J.W. Kolckmann, 1881), vol. 2, 336-39 (Sayre); vol. 3, 89-95 (Knapp).

73. McHenry, (n. 33), *Garrison's History*, pp. 426, 402.

74. Hertz, (n. 9), *Hidden Lincoln*, p. 128.

75. *Ibid.*, p. 259.

76. *Ibid.*, p. 233. Lincoln had one other risky exposure when his friend, Joshua Speed, recommended Lincoln seek relief with a prostitute in 1839 or 1840.

77. T. Gjestland, "The Oslo study of untreated syphilis. An epidemiologic investigation of the natural course of the syphilitic infection based upon a re-study of the Boeck-Bruusgaard material," *Acta Derm.-Venereol.*, 1955, 35, supplement 34.

sufferer is exceedingly infectious. The rash can last up to twelve months and can relapse one or more times within three years of the original outbreak; a few rare persons relapse as long as four to five years after. If we stretch the natural course of the first and second stages along with relapses to their extremes, a primary chancre in Abraham Lincoln in 1836 could conceivably result in syphilis that "hung to him" at the end of 1840. It would be well beyond the expected range for him to infect Mary Lincoln after their November 1842 marriage, unless a primary infection occurred later than 1836. Further evidence against Lincoln infecting his wife is that none of the Lincoln sons showed signs of congenital syphilis (although one-third of children born in the primary or secondary stages of a mother's infection and more than 90 percent born later remain free of syphilis).⁷⁸ The third or tertiary stage of syphilis occurs in about a third of untreated persons, affecting mainly the cardiovascular or nervous systems. *Tabes dorsalis*, a form of tertiary neurosyphilis, occurs on the average one to two decades after the initial infection, with a broad range of three to forty seven years.⁷⁹ If, as the evidence suggests, Mary Lincoln's *tabes dorsalis* began as early as 1869, we are left with the unhelpful imputation of a primary infection at any time in her adult life.

Another form of neurosyphilis may begin somewhat sooner: general paresis of the insane (GPI), a protean disease characterized by defective judgment, paranoia, grandiosity, psychoses, seizures, memory loss, tremors of hands and tongue, slurred speech, and lack of facial expression. Gore Vidal has suggested that Mary Lincoln's behavior is consistent with GPI.⁸⁰ General paresis of the insane and *tabes dorsalis* only rarely co-exist, and the testimony of her last physician, T.W. Dresser, rules against the diagnosis: "She was bright and sparkling in conversation, and her memory remained singularly good up to the very close of her life. Her face was animated and pleasing."⁸¹ Her handwriting (Fig. 1) also does not reveal the tremors of GPI. When

78. K.F. Schulz, K.F. Murphy, P. Patamasucon, and A.Z. Meheus, "Congenital syphilis," in King K. Holmes, Per-Anders Mardh, P. Frederick Sparling, and Paul J. Wiesner, eds., *Sexually Transmitted Diseases* (New York: McGraw-Hill, 1990), pp. 821-42, on pp. 823, 825.

79. Merritt et al. (n. 53) *Neurosyphilis*, p. 244.

80. Gore Vidal, *United States. Essays 1952-1992* (New York: Random House, 1993), p. 693.

81. Dresser, (n. 58).

Dr. Danforth indicated privately to a juror after the insanity trial that he believed that "it was a case of dementia, or degeneration of brain tissue,"⁸² and when Dr. Dresser concluded that "the trouble was really a cerebral disease,"⁸³ neither was diagnosing syphilis but distinguishing her illness as *dementia paralytica*, an organic mental illness, rather than one purely psychological; *melancholia*, or *mania* in the terms of that period. In the 1880s and 1890s syphilis was considered only one cause among several of *dementia paralytica*, and GPI was not firmly associated with syphilis until 1913.⁸⁴ The story that an autopsy was done on Mrs. Lincoln showing cerebral deterioration⁸⁵ seems to have originated with an early twentieth-century Lincoln biographer, W.E. Barton, who mistook Dresser's clinical opinion for anatomic fact.⁸⁶ Despite diligent searches of the Sangamon County records and Barton's own materials, we have been unable to find any evidence for an autopsy.

Given such unpalatable choices to explain Mrs. Lincoln's condition to Congress—exposure to the elements, venery, or syphilis—the four physicians settled on another theory of the time, that an injury to the spine could cause *tabes dorsalis*. This theory became notorious in the 1860s and 1870s as the condition known as "railway spine."⁸⁷ Early railroads were distressingly dangerous with derailments, sudden jolts, and too-rapid turns on curves, producing many severe or fatal injuries to limbs, spines, and heads. Other injuries, such as falls from a height or off a horse were also covered by the rubric. John Eric Erichsen, who corresponded with Dr. Sayre, published his series of cases of railway spine in 1866 (reissued in 1875).⁸⁸ It was already well

82. Lyman J. Gage, letter to William E. Barton, 20 January 1921. Barton Collection, Mary Todd Lincoln Scrapbook (call no. E457.25.M4 Linc.), Joseph Regenstein Library, University of Chicago.

83. Dresser (n. 58).

84. Anonymous, Book review of Charles R. Drysdale's *Syphilitic Insanity*, *Journal of Nervous and Mental Disease*, 1880, 7, 748; Osler, (n. 46) *Principles*, pp. 914–15; McHenry, (n. 33) *Garrison's History*, p. 402.

85. Vidal, (n. 80) *United States*, p. 692.

86. W.E. Barton, *The Life of Abraham Lincoln* (Indianapolis: The Bobbs-Merrill Company, 1925), p. 420: "The attending physician made a post-mortem examination, and issued a statement that for years she had been the victim of a cerebral disease."

87. T. Keller, "Railway spine revisited: Traumatic neurosis or neurotrauma?" *J. Hist. Med. Allied Sci.*, 1995, 50, 507–24.

88. New York Academy of Medicine Archives; Sayre file no. 118, letter from John Eric Erichsen, 5 October 1874; John E. Erichsen, *On Concussion of the Spine. Nervous Shock and Other Obscure Injuries of the Nervous System in Their Clinical and Medico-Legal Aspects* (London: Longmans, Green and Co., 1875).

known that acute trauma to the spine could produce instant paralysis, or paralysis and loss of sensation hours or days later due to delayed swelling of the cord. What Erichsen mainly described were fifty-three cases with a variety of neurological and psychological sequelae, including five compatible with tabes dorsalis, coming on months or even years after a trivial jarring, such as landing heavily on one's feet. His thesis was that a distant blow caused "molecular derangement" in the spine. Another author postulated that "injuries at a distance may over-excite the cord, and lead to the development of tabes."⁸⁹

No author ever presented evidence that the classic eye signs of tabes dorsalis were a feature of "railway spine." Argyll Robertson himself wrote, "I am not aware that a variation in the size of the pupil has been noticed in any of the many cases of spinal injury or concussion of the spine resulting from railway accidents."⁹⁰ Erichsen made no mention of pupils unreactive to light in his cases.⁹¹ The presence of deficits originating in the brain in tabes dorsalis could not be easily accounted for by spinal cord injury, whether by association or anatomic causation. Thoughtful authors soon recognized that many cases of "delayed" tabes dorsalis were simply a coincidence or that medico-legal claims inspired many of the maladies.⁹² Gowers made no mention of the connection at all in his 1879 lectures on diseases of the spinal cord.⁹³ In 1881 the occurrence of true tabes dorsalis after injury was considered by one authority as "comparatively rare" and in 1884 by another as "very rare and only in the predisposed."⁹⁴ Althaus concluded in 1884 that "In the vast majority of cases of locomotor ataxy syphilis is the cause of the complaint."⁹⁵ In 1892 Erb calculated the association of injury and tabes dorsalis as 0.3 percent of cases.⁹⁶ Sir William Osler dismissed it entirely,⁹⁷ a judgment that

89. J. Althaus, "Two lectures on sclerosis of the spinal cord," *Br. Med. J.*, 1884, *I*, 893-96, 985-88, 1035-39, p. 1037.

90. Argyll Robertson, "On an interesting series of eye-symptoms," (n. 37) p. 701.

91. Erichsen, (n. 88), p. 247.

92. J. Althaus, "Remarks on lateral and posterior sclerosis of the spinal cord," *Br. Med. J.*, 1878, *ii*, 685-87; Anonymous, "Proceedings of the Boston Medical Society for Improvement. Concussion of the spine so-called," *Boston Med. Surg. J.*, 1880, *102*, 132-35.

93. Gowers, (n. 70) *Medical Times*, p. 684.

94. R.M. Hodges, "So-called concussion of the spinal cord," *Boston Med. Surg. J.*, 1881, *104*, 361-365, p. 362; C.L. Dana, in "New York Neurological Society stated meeting 11 November 1884," *J. Nervous Mental Dis.*, 1885, *12*, 35-37, p. 37.

95. Althaus, (n. 89), p. 1039.

96. Erb, (n. 32), pp. 526-27.

97. Osler, (n. 46) *Principles*, p. 984.

stands today. On 1 January 1882, therefore, the theory of syphilis as an associative cause of tabes dorsalis was well in the ascendancy, and the theory of injury had considerably diminished.

It was Sayre who originally supposed that Mrs. Lincoln's illness was brought on by her fall in the resort town of Pau, France, in December 1879, although curiously she did not mention the incident in any of her extant letters. If one examines Sayre's statements to the newspapers closely, one could conclude that the fall came about as a result of ataxia already existing. Sayre gave two versions in interviews. After Mrs. Lincoln returned from Europe in October 1880 and was examined by Sayre, he was cited in the *New York Times*:

While in Paris [Pau] last Fall, she was seriously injured by a fall, while arranging a picture on the wall of her parlor. The chair on which she was standing broke, and she was thrown violently backward against the corner of a table. The blow injured her spine, inducing an inflammation, which causes the patient painful spasms of the limbs, and deprives her of the power to walk.⁹⁸

A year later Sayre was quoted directly and in more detail:

In December 1879, Mrs. Lincoln was in Pau, France. On the day when she received the injury which resulted in her prostration, she was expecting a visit from some distinguished persons whom she had known when presiding at the White House, and she naturally wanted her room to look as nicely as possible. She noticed a picture over the mantel-piece which did not hang quite straight, and as she was economizing and living without servants, she undertook to fix it herself. To do this she mounted a step-ladder. Being rather heavy and not over-graceful in her movements on the ladder, it broke under her, and she fell on the middle of her back across the edge of a sofa. That fall was the cause of all her subsequent trouble, and she has never been a well woman since. . . . afflicted with inflammation of the spinal chord [sic].⁹⁹

There are several important inconsistencies in these narratives. First, by early October 1879 Mrs. Lincoln had lost considerable weight, and it seems unlikely that a chair or stepladder would break under her. As she wrote to her grand-nephew Edward Lewis Baker, Jr., "I enclose a card of my exact weight nearly a month ago—since then, as a matter of course many pounds of flesh have departed . . . I am now, just the weight I was, when we went to Wash[ington] in 1861—Therefore I may conclude, my great bloat has left me & I

98. "Mrs. Lincoln's Illness," *New York Times*, 31 October 1880, p. 5, col. 6.

99. *New York Times*, (n. 18).

have returned to my natural size." And on 16 January 1880: "Tell your dear Grandma, I have now run down to 100-pounds, EXACTLY."¹⁰⁰ Second, even if the stepladder (or chair) did break, the vector of the force would be vertically downward and not backward to reach a sofa some feet away, striking the middle of her back. More likely what happened was a precipitate movement on her part caused by ataxia as she climbed up or back down. This hypothesis is supported by the circumstances of another mishap seven months later in June 1880 when, after travel to Marseilles and Avignon, despite considerable back pain and exhaustion, she decided to return to her hotel in Pau. As she recounted her adventure to a correspondent:

But in my great wish to leave this place, arrange my effects here, in a fourth story, with almost a broken back, four days since, I sent for a *bonne*, who had sometimes been of service to me—took her arm and painfully wended my way to the "Hotel de la Paix" closed and deserted—I wished to take a survey of broken trunks & to see how many had to be replaced. Alas, for my weakness, on attempting to descend, my left side gave way, she had to call the Concierge to lift me down, place me in a carriage.¹⁰¹

Finally, the distinguished guests Mary Lincoln was said to be preparing for when she fell were supposed by biographer Jean Baker to be Ulysses and Julia Grant who, when visiting Pau, managed not to see Mary Lincoln in what may have been a calculated snub.¹⁰² Their visit actually took place a year earlier.¹⁰³ The identity of the "distinguished persons" is not known, if indeed they ever existed.

Given the widespread medical knowledge about *tabes dorsalis* at the close of 1881 and what was considered then its most likely cause, it was inevitable that the four physicians chose the least pejorative diagnosis, however marginally acceptable it was to progressive medical opinion. The aim of the examination, after all, was to elicit enough sympathy in Congress to gain an increase in her pension; venery or syphilis might have been what some members would have been grimly delighted to suspect.

From a later perspective, we may offer the most likely diagnosis of the cause of Mary Lincoln's *tabes dorsalis*. The principal alternative

100. Turner and Turner, (n. 48) *Mary Lincoln*, pp. 690, 693.

101. *Ibid.*, p. 699.

102. Baker, (n. 2), *Mary Todd Lincoln*, pp. 360–61.

103. Ishbel Ross, *The General's Wife. The Life of Mrs. Ulysses S. Grant* (New York: Dodd, Mead & Co., 1959), p. 268. John Simon, *The Personal Memories of Julia Dent Grant (Mrs. Ulysses S. Grant)* (New York: GP Putnam's Sons, 1975), pp. 261, 276n7.

to neurosyphilis is prolonged and untreated diabetes.¹⁰⁴ Diabetes may produce many of the same effects on the nervous system as syphilis, which may manifest long before the typical metabolic signs. The tabetic pain in diabetes is more often burning,¹⁰⁵ as it was in Mrs. Lincoln. It was known to someone in 1882 that Mrs. Lincoln had diabetes. Her obituary in the *Chicago Tribune* says she had been to New York, "and underwent treatment for a disease of the eyes and for diabetes."¹⁰⁶ She had several of the cardinal features of untreated diabetes: weight loss, voracious appetite ("her disease is of such a nature that requires her to consume a great deal of food"), excessive urination ("the continual running waters, so disagreeable and inconvenient"), and severe infection ("for several weeks of late she has been greatly troubled by boils, which made their appearance on every part of her body").¹⁰⁷ What the examining physicians called a "chronic disease of the kidneys" was surely the end-stage kidney disease of diabetes that would produce fluid-swelling in all parts of the body.¹⁰⁸

Diabetes as a cause of *tabes dorsalis* was not recognized until 1887, and the Argyll Robertson pupil in diabetes was first described in 1891.¹⁰⁹ Mrs. Lincoln's physicians therefore could not have diagnosed diabetes as the cause of her neurologic illness, although it is curious that they did not even mention the disorder in their report to Congress.

With the one diagnosis we can be sure of, opposed to the one for which we have only conjecture, the law of parsimony dictates accepting diabetes as the cause of Mary Lincoln's final illness.

THE PHYSICIANS: THEIR CHARACTERS AND RELATIONSHIPS

It is clear that Sayre assembled the team he needed for the delicate task. Of the four physicians, William Henry Pancoast (1835–1897)

104. Adams and Victor, (n. 53) *Principles of Neurology*, pp.1136–37.

105. M.N. Swartz, "Neurosyphilis," in Holmes et al., (n. 78), pp. 231–46, p. 240.

106. *Chicago Tribune*, (n. 63).

107. "... many pounds . . .," Turner and Turner, (n. 48), *Mary Lincoln*, pp. 690, 694. "... her disease . . .," *New York Times*, 4 August 1881, (n. 47). "... running waters . . .," W.A. Evans, *Mrs. Abraham Lincoln. A Study of Her Personality and Her Influence on Lincoln* (New York: Alfred A. Knopf, 1932), p. 342; "... boils . . .," *Chicago Tribune*, (n. 63).

108. D.M. Kunhardt, "An old lady's Lincoln memories," *Life*, 9 February 1959, pp. 57–60. "Her fingers swelled up so she had to take off her wedding ring." "Awaiting the Burial . . .," *Daily Illinois State Journal*, 18 July 1882, p. 6, col. 2.

109. T.D. Pryce, "Diabetes with ataxia," *Br. Med. J.*, 1887, I, 883; Loewenfeld, (n. 41), p. 238.

was the most junior, fifteen years younger than Sayre, a surgeon and professor of anatomy at Jefferson Medical College of Philadelphia, a position he obtained with help from Sayre when his more famous father Joseph Pancoast stepped down from the post. The younger Pancoast wrote almost nothing of professional value, was a bit of a dandy, and ignored elementary antisepsis in the age of Listerism.¹¹⁰ His only memorable achievement was acknowledged posthumously, the first known instance of donor insemination to achieve pregnancy.¹¹¹ Pancoast wrote Sayre several endearing letters as if from a nephew to an uncle.¹¹² He could be relied on.

Hermann Knapp (1832–1911) was a pioneer of scientific ophthalmology, someone who undoubtedly could hold his own in a modern academic health center. After achieving professorship at Heidelberg he emigrated to the United States, founded the New York Ophthalmic and Aural Institute, as well as the still-extant journal, the *Archives of Ophthalmology*. He wrote more than 300 scientific papers and invented several procedures and instruments for eye surgery. "The character of Hermann Knapp was absolutely free from jealousy or envy. . . . A salient trait of the doctor was generosity."¹¹³ His obituary referred to Knapp as "a staunch friend."¹¹⁴

Knapp did not achieve full professorship at New York University in mid-1882, so on 1 January of that year he was still academically junior to Sayre. How Knapp managed their relationship is suggested by a letter from Knapp that Sayre included in his textbook of lectures, intended to show Knapp's approval of a rather bizarre claim of surgical success. A patient had been referred by Knapp to Sayre in 1875 because his foreskin could not be retracted over the glans, a long-standing complaint. The man also had partial loss of vision due to

110. A.C. Morgan, "Reminiscence of William Henry Pancoast," manuscript 701 in R. Hirsch, ed., *A Catalogue of the Manuscripts and Archives of the Library of the College of Physicians of Philadelphia* (Philadelphia: University of Philadelphia Press, 1983). "Pancoast demonstrated the value of a boot top for stropping a knife . . . always washing his hands after an operation," p. 1.

111. A.D. Hard, "Artificial impregnation," *Med. Rec.*, 1909, 27, 163–64.

112. Lewis Albert Sayre manuscripts, New York Academy of Medicine, files 171, 172, 173, 208 (1871–1874).

113. T.H. Shastid, "Knapp, Jacob Hermann (1832–1911)," in Howard A. Kelly and Walter L. Burrage, eds., *Dictionary of American Medical Biography. Lives of Eminent Physicians of the United States and Canada from the Earliest Times* (New York: D. Appleton and Company, 1928), pp. 706–8.

114. E. Gruening, "Hermann Knapp. March 17, 1832–April 30, 1911," *Arch. Ophthalmol.*, 1911, 40, 357–64.

optic nerve damage. Sayre claimed that circumcision restored the man's full sight. The letter from Knapp, dated 14 November 1881, is crashingly subtle.

My Dear Doctor: I recollect the patient well. His sight after the operation had materially improved, both as to acuteness and prolonged use. He has consulted me several times since. He has still incomplete atrophy of the optic nerves, and moderate amblyopia; yet I consider it a great result that the atrophy has not progressed, and the patient always expressed his satisfaction and gratitude to you.¹¹⁵

In short, improved but still the same. Despite Knapp's own intimate knowledge of the physiology and disorders of the eye, and the relationship between eye disease and locomotor ataxia, he too could be relied on to be politic and subtle in the examination of Mrs. Lincoln.

Meredith Clymer (1817–1902) was the most patrician of the four. His grandfather was a signer of the Declaration of Independence. Clymer had a prestigious academic career in medicine and neurology, holding professorships at New York University and Albany Medical College, and editing medical journals and textbooks. In 1874 he returned to private practice in New York, becoming a silent presence as associate editor of the *Journal of Nervous and Mental Disease* (1878–1885) and president of the New York Neurological Association (1874–1876). A sense of the man is revealed in a letter placating Sayre, who had taken unwarranted personal offense at something an Irish surgeon wrote in the *British Medical Journal*:

You do, my dear doctor, Dr. Mapother, I think, great injustice. . . . He means to be entirely complimentary to you, without qualification. He is too well informed himself to hint at your borrowing or 'dreaming' from the French and Germans—They have only adopted [your] apparatus w[ith] its principle, within a very short time. I am sure if you will read it again you will agree with me."¹¹⁶

Clymer, too, could be counted on to be discreet.

And then there was Lewis Albert Sayre (1820–1900) (Fig. 2). A memorializer wrote that

115. Lewis A. Sayre, *Lectures on Orthopedic Surgery and Disease of the Joints Delivered at Bellevue Hospital Medical College, During the Winter Session of 1874–1875*, 2nd ed. (New York: D. Appleton and Company, 1883), pp. 60–61.

116. New York Academy of Medicine, (n. 112), file 53, 27 November 1870. The article referred to is by E.D. Mapother, "An address on American medicine," *Br. Med. J.*, 1870, ii, 477–79.



Lewis A. Sayre

Fig. 2. Photograph of Dr. Lewis A. Sayre (courtesy New York University Medical Center, Frederick L. Ehrman Medical Library, New York City, file 003.C.1).

Like all really great men, Lewis A. Sayre bulked high from many points of view; which is as much as saying that he had good friends and good enemies, and probably enjoyed his enemies as much, or more, than he enjoyed his friends. . . . It was always a proud day for me when he would drive up to my house in his open carriage, handsome pair of black horses, and coachmen in livery."¹¹⁷

Sayre had an international reputation as an inventor of several orthopedic instruments and procedures and was knighted by King Charles XV of Sweden. He was most proud of his plaster of paris jacket, the "apparatus" referred to by Clymer, used to treat various curvatures and deformities of the spine by traction. He defended all his procedures vigorously, even contentiously.¹¹⁸ Sayre was more than a bigger-than-life surgeon. He made some truly bizarre claims of cure of an assortment of neurological and psychiatric conditions with his plaster of paris jacket and also by circumcision of males and females. He contended that irritation of the genital area could somehow produce "inflammation at a distance" of the spinal cord, a theory he first explored in his graduation thesis from medical school in 1842.¹¹⁹ In a paper presented at a meeting of the New York Neurological Society (Meredith Clymer presiding), he claimed the cure by circumcision of seven children with conditions apparent to us as autism, mental retardation, and cerebral palsy. His clinical description of one child, a five-year old, is incredible even by the relatively relaxed scientific standards of the day:

Sept. 20, 1873, the following case was sent to me for idiocy, and on account of her inability to stand. . . . When she attempted to stand, the limbs crossed so far that the nates nearly touched the floor, and she looked idiotic. . . . In horizontal posture, after a few moments, her entire countenance changed to that of intelligence. After a short time she began to talk, and talk sensibly. Put her in the erect posture again, she soon assumed the same look of idiocy and lost the power of speech immediately. . . . The clitoris was very

117. J. Ridlon, "Master surgeons of America," *Surg. Gynecol. Obstet.*, 1932, 55, 385-87.

118. *Transactions*, (n. 72), vol. 4, 173-76. New York Neurological Society, "Report of the proceedings of the Society at its stated meetings November and December, 1881, and January 1882," *J. Nervous Mental Dis.*, 1882, 9, 164-69 (meeting of 1 November 1881).

119. Lewis A. Sayre, "An inaugural thesis on irritation of the spinal marrow and ganglia of the sympathetic nerve" (Columbia College of Physicians and Surgeons, 1842; from the archives).

red and much enlarged, the slightest friction upon it throwing her into a peculiar spasm.¹²⁰

Within nine months after circumcision, claimed Dr. Sayre, the child's spastic gait was cured. The response of the Neurological Society to the presentation was muted: a one-paragraph summary out of six pages in the society's journal covering the meeting.¹²¹

Regardless of the medically dubious conclusion of the doctors' report, it was after all Sayre's emphatic beliefs and dominant personality that finally accomplished what was needed for his patient—an increase in Mrs. Lincoln's hard-won pension.

WHAT DID DR. SAYRE REALLY SUSPECT?

In 1894 Sayre published a paper in a non-medical journal, drawing on his elaborate case notes of 1877 to 1886.¹²² He described four men hurt in railway accidents — three between 1877 and 1879—with varying neurological dysfunctions below the waist. One, a physician, had been “violently thrown upon the corner of a stove.” In his 1883 textbook of lectures, Sayre also described an Irish woman named Mary, about fifty years old, whom he saw in January 1881 just three months after he first attended to Mary Lincoln. The Irish Mary, by odd coincidence, “fell from a step-ladder in 1877, striking on a sofa on the middle of her back.”¹²³ This woman had been completely paralyzed for three years. All four men and the woman were seen by Sayre months to years after their accidents, all were treated with the plaster jacket for periods of six months to two years, and all were said to have recovered. In fact, after about eight months of Sayre's jacket, Mary “could dance an Irish jig with vigor.” Three of the men

120. Lewis A. Sayre, *Spinal Anaemia with Partial Paralysis and Want of Co-ordination from Irritation of the Genital Organ* (Philadelphia: Collins, Printer, 1875).

121. New York Neurological Society “Stated meeting November 6, 1876,” *J. Nervous Mental Dis.*, 1877, 4, 111: “Prof. L.A. Sayre referred at some length to the subject of reflex irritability from an abnormal condition of the genital organs, and mentioned several cases where the patients were cured by the simple removal of the source of irritation and in such cases the cure is almost immediate.”

122. L.A. Sayre, “Obscure injuries of the spine followed by paralysis of long standing relieved by suspension and plaster of paris jacket,” (reprinted from *The Railway Age and Western Railroader*, n.v. Chicago, 1894, Lewis Albert Sayre manuscripts, New York Academy of Medicine. A “volume 1” of case notes describing cases through 1872 exists at the New York Academy of Medicine; no other volume has been located.

123. Sayre, (n. 115) *Lectures*, pp. 486–87.

were also being treated by Sayre around the time he was responsible for Mary Lincoln's care.

In his October 1880 interview Sayre had concluded that Mrs. Lincoln's "condition was serious, but not by any means hopeless, under proper treatment," and yet he sent her home to her sister in Springfield untreated.¹²⁴ A year later he declared, "The period for active treatment of the disease had long since passed. . . . Her kidney disease is relieved now, and the main danger to be feared is spinal sclerosis."¹²⁵ Yet, despite his apprehension, he did not apply his orthopedic device but referred her for hydro- and electrotherapies at Miller's Hotel.

Why didn't Sayre treat Mary Lincoln with his celebrated device, the plaster of paris jacket? He used it in cases of trauma to the spine with neurological sequelae (his diagnosis in Mary Lincoln's case), and even for the deformity of Pott's disease, tuberculosis of the spine, which he believed was due instead to a concussive trauma.¹²⁶ One must wonder if Sayre did think that Mary Lincoln suffered syphilitic *tabes dorsalis*, a condition not treated with the plaster jacket.

124. *New York Times*, (n. 98).

125. *New York Times*, (n. 18).

126. Lewis A. Sayre, *The History of the Treatment of Spondylitis and Scoliosis by Partial Suspension and Retention by Means of Plaster-of-Paris Bandages* (New York: D. Appleton and Company, 1895), reprinted from the *New York Medical Journal* for 16, 23, and 30 March 1895. See also Sayre, (n.115) *Lectures*, p. 448.