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“Yes, I shot the President, but his physicians killed him.”

The assassination of President James A. Garfield



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President James A. Garfield suffered two gunshots on July 2, 1881, but did not die until 80 days later of complications from sepsis. He might have survived had his injuries not been contaminated, either by the gunshots themselves or the interventions that followed. “Yes, I shot the president,” said Charles Guiteau, Garfield’s assassin. “But his physicians killed him.”

The drama of Garfield’s struggle to survive his injuries evoked enormous national interest, a harbinger of the medical dramas and documentaries of today. D. Willard Bliss, a former Civil War surgeon, and his handpicked consultants underwent daily scrutiny by the professional community and lay press. As the President succumbed to his injuries, the surgeons’ reputations suffered. A primary criticism was the supposed lack of antiseptic interventions in Garfield’s care, especially when probing the wound with unwashed hands.

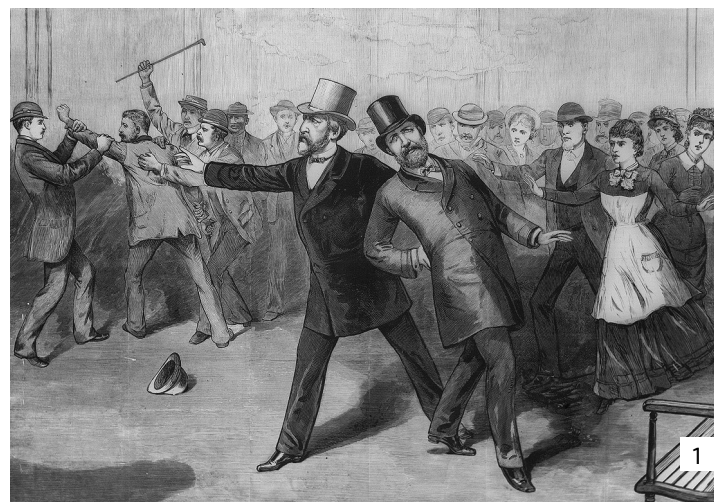
Inserting a finger into the wound, however, was a basic part of examination of a gunshot wound at the time. Many American surgeons had not accepted Listerian antisepsis at the time of the event, and aseptic techniques, such as scrupulous handwashing and wearing surgical gloves, had not yet been developed. In the context of surgical practice of the era, his surgeons followed the standards of care of the time.

Robert Reyburn, professor of surgery at Howard University in Washington, DC, was called in consultation soon after President James A. Garfield was shot in 1881. One of the core group of surgeons involved in his care, he acted as their scribe. Reyburn was one of the school’s first five faculty members and had served as its dean for one year in 1870–1871. Long after the assassination he became dean once more from 1900 to 1908. His records of Garfield’s condition and interventions up to his death, reprinted in the *Journal of the American Medical Association* in 1894, 13 years after the event and long after the controversies that followed the assassination had waned, provide nearly all of the descriptions and quotations in the present article.¹

The shooting

Charles Guiteau, a frustrated office-seeker, shot Garfield twice in the flank as the Chief Executive waited for his train inside the Baltimore and Potomac railroad station in Washington, DC, on the morning of July 2, 1881 (Figure 1). It was 20 years before Congress asked the Secret Service to protect the President after the assassination of William McKinley in 1901. Garfield’s 17-year-old son Harry and the President’s closest advisors rushed to the stricken man on the floor of the depot and began to call for help.

Smith Townshend, a local health officer, emerged from the crowd, the first physician on the scene. He found the President in shock, his blood covering the floor around him. He gave him an ounce of brandy as a stimulant along with one drachm (or dram; 8 drams to an ounce) of aromatic ammonia spirits. Garfield was moved to the less public second floor of the building and was carefully laid on a mattress on the floor. He continued to bleed.



Robert Todd Lincoln, Secretary of War, summoned D. Willard Bliss, his close friend, a former military surgeon in the Civil War, and now a practicing surgeon in the capital (Figure 2). By the time the surgeon arrived, the President was in trouble.



The President was deathly pale, almost pulseless... a very feeble pulse of about 40 beats per minute, and a marked pallor of the face; skin cold and covered with a clammy perspiration.¹

Bliss found two wounds, a shallow flesh wound at the posterior aspect of Garfield's left shoulder and a more ominous one four inches to the right of the 12th thoracic vertebrae. He tried to explore the latter injury with his finger to trace the path of the bullet. He felt the shards of Garfield's 11th rib but not the bullet. When he guided a probe into the wound it could only be passed three or so inches before it stopped. The President was placed with the gunshot wound dependent to encourage drainage.

In short order eight physicians joined Bliss and Townshend at the scene. The doctors retired to a private corner of the train depot where they reviewed what Bliss had found and offered their suggestions. Bliss, the most experienced of the group, was in charge of the President's care from the beginning. Reyburn began to take the notes that would become the official medical history of the President's care.

Clinical course

Garfield repeatedly asked to be taken to the White House. The group decided to transfer him to the official residence, with dispatch but also great care. He complained of "extreme thirst," so he was given small sips of water. His surgical team decided it would not be appropriate to undress him at that stage of his injury. He was given subcutaneous injections of morphine (1/4 grain; 1 grain, about 60 mg) and atropine (1/96 grain) to relieve pain in his lower extremities and to stimulate his system. Over the first day after his injury he continued to vomit, had a tachycardia to 158, and his temperature fell to 96.5°F. His doctors did not expect him to survive the night.

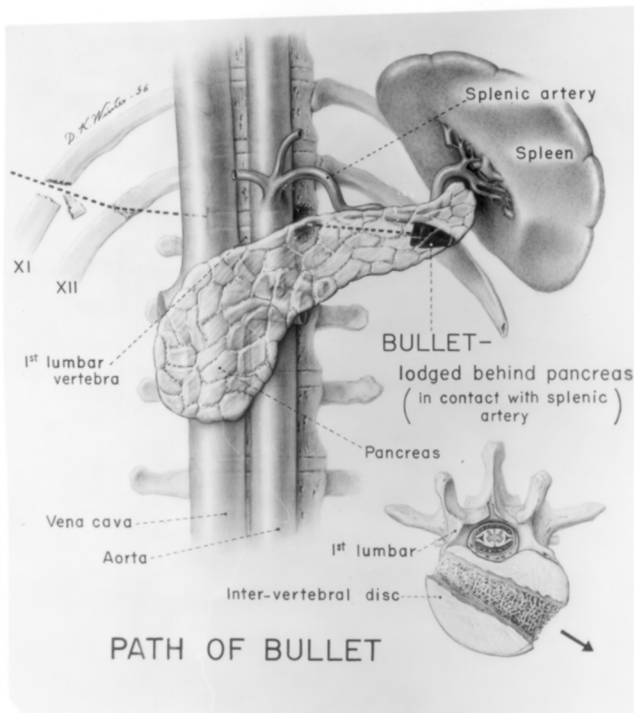
Urgent calls were made for two of the country's most prominent surgeons, D. Hayes Agnew, professor of surgery at the University of Pennsylvania, and Frank Hamilton of Bellevue Hospital in New York. Agnew arrived the early hours of July 4, and Hamilton shortly after. Told by Bliss to examine the President as though he was their own patient, the two consultants reexamined the him, including probing the wound with their fingers.

The first two days after the event had been stormy, but the vomiting had disappeared and he was actually drinking some milk and lime water "with relish." Troublesome was severe pain in his legs and groin, which they ascribed to contusion of his spinal cord. The President's overall condition had improved, an indication that the kidneys, intestines, and liver had been spared injury and the peritoneum had not been violated.

Agnew, Hamilton, and Bliss made the crucial decision not to explore the wound. The location of the bullet was still unknown, and extensive dissections to find it, they believed, would complicate the President's course unnecessarily. By the end of the week the President appeared to confirm the wisdom of their strategy. He awoke refreshed and free from pain and was without fever. He was able drink chicken broth with some egg white. His legs were still heavy and weak, and the skin of his feet and ankles was sensitive to touch. An ominous new sign had emerged: He had developed jaundice. He had fevers daily, for which he received quinine.

The wound began to discharge “healthy looking pus,” and on one occasion discharged a shard of bone and some bits of clothing. A two-inch tube was fixed to the skin to facilitate drainage, and it was occasionally changed when it became occluded. Agnew made a counter incision toward the end of Garfield’s fourth week to enlarge the opening in his flank over the rib. Another fragment of bone was removed, and the wound was rinsed with carbolic acid.

Still troubled by his failure to remove the bullet, Bliss invited Alexander Graham Bell to search for the projectile with his newly-invented metal detector. Bell concluded that the bullet lay in the right side of the abdomen. The President’s autopsy would show, however, that the bullet had crossed the midline and lay in the left side of the retroperitoneum (Figure 3).



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There were signs that the area of infection had spread beyond the path of the bullet. After Bell’s examination, a softer tube that seemed to track toward the pelvis was passed about four inches into the abdomen, a greater distance than the previous drains. As a large volume of pus followed, “profuse and laudable in character,” the President had some relief of pain. A new area of induration appeared toward the anterior superior iliac spine over the iliac fossa, a region that had not been previously involved. At a later exploration they were able to pass the tube a full 12 inches toward the ilium.

Heretofore Garfield was able to drink sips of milk and broth, a bit of beefsteak, a few berries, and the like, but never a full meal. Midway through the second month after his injury, he was unable to eat anything. His condition “excited very grave apprehensions in the minds of the attending surgeons.” Faced with signs of collapse, with a heart rate of 130 and hypothermia, the surgeons decided on nutritive enemas, consisting of one egg yolk, an ounce of bullion, a half-ounce of whisky, one-and-a-half ounces of milk, and 10 drops of tincture of opium. The concoction was warmed to 100°F. The response was gratifying. “The administration of these enemas was highly beneficial to the President, and he showed the restorative and invigorating effect of their use almost immediately.”

In truth the enemas provided no nutrition. “In spite of all our efforts to nourish the President,” Reyburn wrote, “he is emaciating so rapidly that it is distressing to look at him.” At the time of his shooting his attendants had trouble moving his bulky 210-pound frame. By the end of the second month of his confinement he weighed only 130 pounds.

His lack of oral intake may have set him up for his next complication, suppurative parotitis of the right parotid gland. Despite an incision into the infected gland, pus appeared in his external auditory canal and drained into his mouth, bypassing Stenson’s duct. A large boil appeared below his right ear, followed by others in his axilla and trunk. He struggled with thick sputum from a productive cough, a sign he had bronchopneumonia. By the end of the eighth week of confinement, he had sacral bedsores.

Garfield had enough. His slow demise occurred during the hot Washington summer. Fans blew air over ice to get the temperature indoors to 75°F, but most of the time his room was closer to 90°. He and his wife, Lucrecia, saw the New Jersey shore community of Elberon as a place where the ocean air might give him a better chance of recovery. In early September a specially outfitted rail car took Garfield to the resort town. Temporary rails were laid to take the President’s car directly to the door of the beach cottage where he would stay for the last days of his life. Mercifully, death came on September 19, 1881, two-and-a-half months after he was shot.

Autopsy

Bliss, Reyburn, and three other physicians performed the autopsy of Garfield's already embalmed body.² The elusive bullet was lodged behind the pancreas, to the left of the vertebral column (Figure 3). They saw the fractured 11th rib but discovered that the 12th rib was also broken. The bullet had burrowed through the body of the first lumbar vertebra but spared the spinal cord. They found the retroperitoneal abscess that tracked to the iliac fossa.

They found a rent in the splenic artery that they concluded was a ruptured splenic artery aneurysm. In support of their contention was about a pint of bloody fluid in the area but no collection in the free peritoneal cavity that would indicate fatal exsanguination. He had a right lower lobe bronchopneumonia.²

Reyburn noted that all of the spaces around the area of the 11th rib and the retroperitoneal abscess that extended into the iliac fossa had been addressed with drainage procedures. From a surgeon's point of view everything that could have been addressed had been. Understandably defensive after years of debate and second guessing about Garfield's care that will be described below, he quoted a number of surgical authorities who claimed gunshot wounds to the vertebral column were uniformly fatal.

From a modern perspective, there were other significant factors that contributed to Garfield's death: hemorrhagic shock that went without resuscitation, inadequate nutritional support throughout the course of care, and unchecked sepsis from the injured area, likely the space that tracked to the ilium, and bronchopneumonia.

A finding that did not receive comment at the time, either by Garfield's surgeons or their critics, was a fist-sized collection of pus and bile beneath the liver, gall bladder, and transverse mesocolon that was nowhere near the track of the bullet. In 2012 Theodore Pappas of Durham concluded the most likely cause was gall bladder perforation from acalculous cholecystitis, a posttraumatic complication that was first described in 1947 and a not-infrequent complication of prolonged intensive care in the 1970s. Such an undrained collection of pus may have led to Garfield's deterioration in mid-August and contributed to his final downhill course.³

A concerned nation

The shooting and Garfield's struggle of survival were matters of intense public interest. According to Gert Brieger, William Welch Professor of the Institute of the History of Medicine at Johns Hopkins, it was the first medical case that was consistently reported in the lay press and the medical literature.⁴ Bliss, Agnew, and Hamilton became national celebrities, pestered by the press for updates and comments on Garfield's condition.

Physicians and the lay public became increasingly outspoken in their criticism as early as the second week after the assassination attempt. Physicians far removed from the case, some of them surgeons, gave their opinions on his care and what should be done. The lay public became so familiar with the case that people debated surgical options and knowingly used then-sophisticated surgical terminology.⁵

In an attempt to satisfy the public interest Bliss and his consultants gave daily updates of the President's general condition. Aside from his vital signs, they gave few details of his condition or care. For example, in mid-August when his surgeons had their "very grave apprehensions" whether he would survive, they reported the following:

*The President was somewhat restless and vomited several times during the early part of the night. Since three o'clock this morning he has not vomited, and has slept tranquilly most of the time. Nutritious enemata are successfully employed to sustain him. Altogether the symptoms appear less urgent than yesterday afternoon. At present his pulse is 110; temperature 98.6°; respiration, 18.*²

One reason the summaries were deliberately vague was because the President himself read the paper and the daily progress notes that were released to the public. Reyburn wrote:

*We were placed in a very embarrassing position. On the one hand we did not wish to dishearten our patient by circulating discouraging reports of his condition, and on the other hand we wished to do our duty to ourselves and to the people of the whole country, who watched with such intense eagerness every word of intelligence that came from us.*¹

Given only limited information, many concluded that Bliss was dishonest, interested only in hiding the severity of Garfield's condition. Bliss had an authoritarian manner that was abrasive in civilian life. Among his colleagues he was curt and blunt. His unconcern about public opinion made him seem closed mouthed and secretive. He won no friends among the press. Bliss's reputation suffered as his patient's condition deteriorated. After Garfield died headlines joked, "Ignorance is Bliss."

Reyburn, who had assisted in Garfield's care from the first day, was impressed by Bliss's devotion to the President's medical care. True to his military background, Bliss assumed full leadership and ownership of the task once he was called to serve Garfield at the train station, the first surgeon at the scene. Whatever his shortcomings of personality, he had a stubborn sense of responsibility for his patient.

Continued debate

The clinical controversy at the time was the management of the President's wound. "In gunshot wounds, the science of surgery requires certain things to be done," wrote William Hammond, in a symposium organized by the *North American Review* literary magazine in December 1881, just three months after Garfield's death. The requirements included "all foreign bodies, such as pieces of clothing, spiculae of bone,... should be removed from the track of the wound as soon as discovered, and the bullet itself should be extracted if its removal can be effective without the infliction of serious additional injury." He criticized the failure of Bliss and his colleagues in not exploring the wound and doing more to control bleeding in the first hours of Garfield's injury.⁶

John Ashhurst of Philadelphia disagreed. The decision made by Bliss and his colleagues was correct: The wound should not have been explored. He thought that an extensive exploration for the ball would have been too dangerous, either damaging an artery or entering the peritoneum, then thought to be a near-mortal injury. The autopsy finding of a ruptured splenic artery aneurysm and the odd ricocheting course of the bullet in Garfield's body proved his point.¹⁶ Ashhurst may have had a bias—he was junior to Agnew at Penn and would later occupy Agnew's chair as professor.

Today's surgeon might see that the President's surgeons probably did not want to wander into the chest and create a pneumothorax, or create mischief in the retroperitoneum, then as now a hazardous area to explore blindly. It would have been no easy matter to control bleeding from a lacerated splenic artery, a left-sided structure, from an extension of Garfield's gunshot wound on the right side of his back.

Another criticism was that the surgeons were so obsessed with locating the bullet that they contaminated the wound when they repeatedly put their unwashed fingers in it. Probing the wound with a finger was a customary surgical practice for gunshot wounds after the Civil War. Hammond quoted Léon Legouest, professor of surgery at the Val-de-Grâce military hospital in Paris. "The first thing the surgeon who is called to a case of gunshot wound should do is to explore the wound," Legouest wrote. "The finger is the best exploring instrument."⁶

Reyburn wrote that Bliss and his colleagues took every measure to prevent infection given their understanding of germ theory.

[The] wound of the President was dressed antiseptically, and this continued to be the case during the entire time of the treatment. The most scrupulous cleanliness of the instruments, and surgical appliances was observed, and also of the antiseptic solutions used for the daily washing out of the wound, and every effort was made to render them as aseptic as possible. ... The carbolic spray was also invariably used during the [daily] dressing of the wound.¹

At the time of Garfield's assassination, germ theory had just started to take hold in America. Thomas Gariepy, historian at Stonehill College in Massachusetts, traced the acceptance of antiseptics in America.⁷ Surgeons in the U.S. were quick to adopt carbolic acid as an antiseptic in wound dressings after Lord Joseph Lister in Glasgow started its use in 1867, then as a spray during surgery in 1871. But when Lister visited the U.S. in 1876 during the Philadelphia U.S. centennial celebration, skeptics in Europe and Great Britain already were questioning whether carbolic acid was as effective as he claimed.

In 1881 when Garfield was shot, acceptance of the antiseptic management was not uniform in America. Like Lister's critics abroad, many in the U.S. had difficulty reproducing Lister's results. Befitting the founders of their country, American surgeons were independent and characteristically pragmatic. They distrusted anything complicated, which included the various carbolic acid solutions and spray devices that Listerism required. To the frustration of the country's Listerians, surgeons in the U.S. "[downplayed] theory over praxis."⁷ The foundations of asepsis, which would revolutionize surgical practice as the primary means of controlling infection during operation, were just being developed in Germany with the discovery by Robert Koch of bacteria in wound infections in 1878.

Ashhurst doubted that a more aggressive attempt at disinfecting the wound would have been beneficial. "I am not, individually, an advocate or great admirer of what is called 'Listerism,' he said. "I believe that ... disturbance of the wound ... would have done more harm than asepticism would have done good."⁶

According to Reyburn, Garfield's surgeons took every measure to prevent infection given their understanding of germ theory, including the use of carbolic acid solutions to irrigate the wound and spray over the field during dressings. It was also used to soak the dressings and clean the instruments. Writing more than a decade after the event, Reyburn wrote, "It must be remembered that the technique of antiseptic ... was not so thoroughly appreciated or carried out by operating surgeons in 1881 as it is in 1892."¹¹

Conclusion

Reyburn reminded his readers that criticism of Garfield's care must take into account the state of knowledge and practice at the time, by surgeons confronted by the patient at the scene. Bliss and his colleagues had the misfortune of having to manage a celebrity patient in full view of the country. Today's legal guarantees of privacy of medical information allow physicians to care for patients away from the public, with protocols to provide truly newsworthy information.

The surgical tradition of review of deaths and complications (D&C; also "M&M," morbidity and mortality) is a foundation of modern surgical practice. The analysis of the President's care was before the entire nation, from the uninformed and unqualified to the country's foremost surgeons. The best D&C conferences today are structured and informative. The scientific and clinical literature guide analyses.

One aspect where Garfield's review was superior to the modern D&C conference: Garfield's surgeons conducted a post-mortem examination. Autopsies are seldom performed today and are literally "a thing of the past." They found evidence of a cause of death, the splenic artery aneurysm, which they had not suspected. Their honest and complete reporting allowed a surgeon more than a century later to identify an unaddressed source of sepsis, gall bladder perforation from acalculous cholecystitis.

Bliss did not deviate from the standard of care in 1881, but he lost the public narrative, demonstrating the hazard of conducting surgery in full view of public scrutiny. Bliss, Agnew, and their colleagues served the President with uncommon devotion under the contemporary standards of care. J. Marion Sims of New York had also written his views of the case for the *North American Review*. "[With] this injury it is a marvel that he lived so long"⁶

References

- 1 Reyburn R. Clinical history of the case of President James Abram Garfield. *JAMA*. 1894;22:411-417;460-464;498-502;545-549;578-582;621-624;664-669.
- 2 Bliss DW, Reyburn R, Woodward JJ, et al. Complete medical record of President Garfield's case: Containing all of the official bulletins together with the official autopsy. Washington, DC: Charles A. Wimer Publishing, 1881.
- 3 Pappas TN, Joharifard S. Did James A. Garfield die of cholecystitis? Revisiting the autopsy of the 20th president of the United States. *The American Journal of Surgery*. 2013;206(4):613-618.
- 4 Brieger GH. A portrait of surgery: Surgery in America, 1875-1889. *Surg Clin No Amer*. 1987;67(6):1181-1216.
- 5 Adams JH. History of the life of D. Hayes Agnew, M.D., L.L.D. Philadelphia, F.A. Davis, 1892.
- 6 Hammond WA, Ashhurst J Jr, Sims JM, Hodgen JT. The surgical treatment of President Garfield. *North American Review*. 1881;133(301):578-610.
- 7 Garipey TP. The introduction and acceptance of Listerian antiseptics in the United States. *J Hist Med Allied Sci*. 1994;49(2):167-202.
- 8 Ridpath JC. Life and Work of James A. Garfield. Chicago: Jones Brothers & Company, 1882; 517-650.
- 9 Brieger GH. American surgery and the germ theory of disease. *Bull Hist Med*. 1966;40(2):135-145.
- 10 Rich NM, Burris DG. "Modern" military surgery: 19th century compared with 20th century. *J Am Coll Surg*. March 2005;200(3):321-322.
- 11 Senn N. The dawn of modern military surgery. *Surg Gynecol Obstet*. 1908;6(5):477-482.

Legends

- 1 James A. Garfield's assassination, published in Frank Leslie's Illustrated Newspaper. From Internet Archive Wayback Machine. Images in American Political History.
- 2 D. Willard Bliss, ca. 1865. From the National Library of Medicine.
- 3 Path of the bullet, illustration from the autopsy report. From Official Bulletins and Autopsy, 1881.