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In the preceding 200 years, thirty-seven men have held the office of President of the United States. Only one of these, Ulysses S. Grant, died of cancer. In early June 1884, the sixty-three year old ex-president first complained of soreness in the right tonsillar region. By October, one of the lymph glands under the angle of the mandible on the right side became enlarged. An ulceration was seen at the base of the right tonsillar pillar. Medical consultation was sought, and microscopic examination of a biopsy of the lesion revealed "epithelioma," or what today would be called squamous carcinoma.

The medical history of General Grant has been meticulously documented, and we are able to closely follow the natural history of his illness as well as his most intimate reactions to it. Grant was a national hero. (Figure 1.) Speaking was difficult and painful during the latter part of his illness, and he communicated by writing on scraps of paper. Because of the General's fame, these were treasured by their recipients, and we have a record of the General's deepest feeling about his disease and the specter of imminent death. We are able to read the patient's own words and we are not dependent on memories dulled by the passage of time.

Grant, well aware of this, wrote in a note to one of his physicians: "I will have to be careful about my writing. I see every person I give a piece of paper to puts it in his pocket. Some day they will be coming up against my English" [1]. Many of these notes have been preserved. Some are quite mundane, some humorous, and others merely pathetic. All give some insight as to the nature of the patient.

Two of these notes by example are as follows: "Doctor, I feel worse this AM on the whole than I have for some time. My mouth hurts me and cocaine ceases to give the release it did. If its use can be curtailed, however, I hope it will soon have its effect again. I shall endeavor to rest again if I feel it possible" [2]. When Doctor George Shrady requested a larger spatula to use as a tongue depressor during one of his examinations, Grant wrote: "I said if you want anything larger in the way of a spatula—is that what you call it?—I saw a man behind the house here a few days ago filling a ditch with a hoe, and I think it can be borrowed" [3].

Two of Grant's physicians provide further documentation of their patient's illness. Doctor George Shrady (Figure 2), a New York surgeon, was also editor of the *Medical Record*, in which he published weekly bulletins regarding all aspects of the General's condition between February 21 and June 27, 1885. After the General's death, Doctor Shrady discussed in detail the surgical and pathologic aspects of Grant's case and published this also in the *Medical Record* [3]. In a series of three articles published in *Century Magazine* in 1908 [2], Shrady described his personal relations with his distinguished patient.

Doctor John Hancock Douglas (Figure 3), a New York "throat specialist," also treated the General during his illness and virtually resided as a member of the Grant household. (Figure 4.) Doctor Douglas kept a meticulous diary which has never been published but is preserved in the Library of Congress. This diary has been reviewed. Douglas had been Associate Secretary of the United States Sanitary Commission throughout the Civil War and he had met Grant at Fort Donelson before Grant became a national figure. Doctor Douglas also kept his personal correspondence with Grant. He considered these privileged documents and passed them on to his daughter. There are in all approximately 120 of these faded slips of paper, all written in pencil, dated at various times of the day and night, the conditions frequently noted on the back in Doctor Douglas' handwriting. Miss Douglas gave these papers to her cousin. Horace Green, who utilized them in his work General Grant's Last Stand [4].

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Figure 1. A fellow officer said that Grant "habitually wears an expression as if he had determined to drive his head through a brick wall and was about to do it." (Enlargement of a negative made by Brady in Washington, probably in 1864.)

In the spring of 1884, the sixty-three year old expresident, according to the diary of Doctor Douglas, "observed upon eating fruit that his throat was sore and that peaches, particularly, of which he was fond gave him great trouble" [5].

Grant's wife persuaded him to seek medical advice. The Grant family was spending the summer in Long Branch, New Jersey, and the General was examined by Doctor Da Costa of Philadelphia, who advised him to see his family physician, Doctor Fordyce Barker (Figure 5) in New York. Doctor Barker was in Europe until the middle of October. Observing the medical proprieties of the day, Grant sought no other consultation at this time, and the disease received a headstart of twelve weeks. On examining his patient, Doctor Barker immediately referred him to Doctor Douglas.

On the morning of October 22, 1884, Doctor Douglas examined Grant and noted in his diary: "the

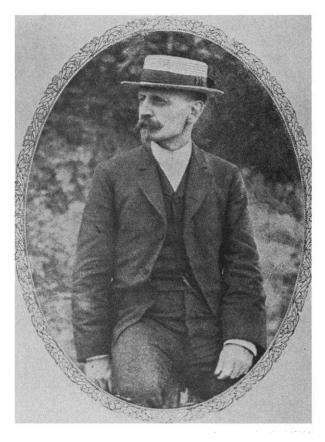


Figure 2. Doctor George F. Shrady, editor of the Medical Record and one of Grant's physicians. (From photograph in Century Magazine, 1908.)

velum [was] inflammed, of a dark, deep, congestive hue, a scaly squamous inflammation strongly suggestive of serious epithelial trouble" [5]. When Grant asked Doctor Douglas if the disease was cancer, Douglas stated: "The question having been asked I could give no uncertain, hesitating reply. I gave that which I believed qualified with a hope I realized that if he once found that I had deceived him, I could never reinstate myself in his good opinion. I said 'General, the disease is serious, epithelial in character, and sometimes capable of being cured'" [5].

The lesion, as described by Doctor Douglas, would be classified today as a T_1N_1 squamous carcinoma of the tonsillar pillar. (Figure 6.)

For a time cessation of all smoking and local treatment appeared to prevent the spread of tumor. The local treatment, as described by Doctor Shrady, consisted of topical Iodoform, salt water gargles, dilute carbolic acid gargles, gargles composed of permanganate of potash and yeast, and a 4 per cent topical cocaine solution applied for the relief of pain [3].

Local treatment, although affording some palliation, could not of course arrest the growth. Doctor

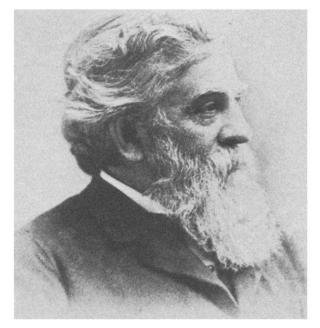


Figure 3. Doctor John Hancock Douglas. (From a photograph in Century Magazine, 1908.)



Figure 5. Doctor Fordyce Barker, Grant's family physician. (From a photograph in Century Magazine, 1908.)

Shrady states: "By December 1884, the disease took a fresh start and spread in upward and downward directions so that in the course of the two months following, the posterior pillar of the fauces was almost entirely destroyed, the tonsillar space infiltrated, the base of the anterior pillar perforated, and the right side of the base of the tongue indurated and ulcerated" [3]. Shrady described further spread of the tumor including destruction of the palate and secondary infection. Destruction of the soft palate of course gave the General a great deal of difficulty in



Figure 4. Doctor Douglas practically resided as a member of the Grant household during the General's illness and is shown here with the Grant family at Mount McGregor, June 19, 1885.

eating as the palatal incompetence resulted in food partially exiting through his nose.

On February 18, 1885, a biopsy of the lesion was performed under cocaine topical anesthesia and examined under the microscope by Doctor George R. Elliott of New York. Doctor Elliott describes his findings in the *Medical Record* of March 14, 1885, and his drawings clearly illustrate what we recognize today as squamous carcinoma with keratin pearl formation [6]. The microscope at the time was regarded somewhat as a "toy" and was not widely used in tumor diagnosis.

The possibility of surgery was discussed early in the case as noted by Doctor Shrady in the "Medical Record of August 1, 1885. The necessary operation is outlined in detail, including division of the mandible anterior to the ascending ramus, removal of the entire tongue and the greater part of the soft palate together with removal of the ulcerated and indurated tonsillar area, and removal of the glandular structures under the right angle of the lower jaw. The surgeons believed this to be mechanically possible, but they were not inclined to recommend the procedure in the best interests of their distinguished patient. They further note that even by such means there could be no guarantee, in view of extensive surrounding infiltration, that the limits of the disease could be reached without immediate risk to life by "the severe shock to a constitution already much enfeebled" [3].

Well known today is the higher incidence of oral cavity cancer in smokers and drinkers [7-10]. We know that General Grant smoked heavily. The extent

of his drinking is open to question.

In relation to cigar smoking, the General told his aide, Horace Porter, about the inception of the habit. "Grant said that he had been a very light smoker prior to the attack of Fort Donelson in 1862. At Admiral Foote's request, he had gone aboard the flag boat in the Cumberland River and had been given a cigar. On the road back to his command, he was met by a staff officer who told him the enemy was attacking vigorously. While giving the order for counterattack, Grant rode forward among the troops carrying the unlighted cigar in his hand. Grant states that 'in the accounts given in the papers, I was represented as smoking a cigar in the midst of conflict; and many persons, thinking no doubt that tobacco was my chief solace, sent me boxes of the choicest brands from everywhere in the North. As many as 10,000 were received. I gave away all I could get rid of but having such a quantity on hand, I naturally smoked more than I would have under ordinary circumstances, and I have continued the habit ever since' " [11].

Doctor Shrady recognized the possible carcinogenic effect of tobacco and wrote: "It is quite probable that the initiation of smoking was the active cause of the cancer in General Grant's case, or, at least, it is fair to presume that he would not have had the disease if his habit had not been carried to excess. This assumption is made in the face of the fact that, of the thousands who smoke, a very small proportion suffers from the disease" [3].

The use of alcohol by General Grant is open to historical as well as medical controversy. When Grant was stationed on the Pacific Coast after the Mexican War in the years 1852 to 1854, he did have a drinking problem. This might have had something to do with his resignation from the Army. Grant at this time was thirty years old. Separated from his wife and children for years with no prospect of acquiring the money to reunite his family, recently promoted but not likely to rise again for many years, in poor health, assigned to a small isolated post with a commanding officer he had disliked for years, Captain Grant might well have drunk more than he could handle. Grant did not like to hunt or fish, and while on the Pacific Coast, straight whiskey was probably a frequent diversion for him as well as for his fellow officers. Practically all the first hand evidence as to Grant's drinking is by way of implication. The implications are fairly strong that at certain times before he came to a position of importance, whiskey was an occasional release from boredom.

Much of the discussion about Grant's drinking can be traced back to John Rawlins (Figure 7), a former

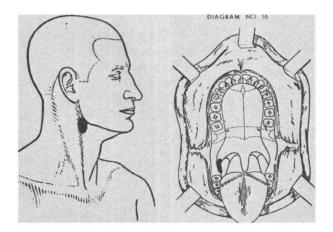


Figure 6. The lesion as described by Doctor Douglas when he first saw Grant in consultation would be classified today as a T_1N_1 carcinoma of the tonsillar pillar.

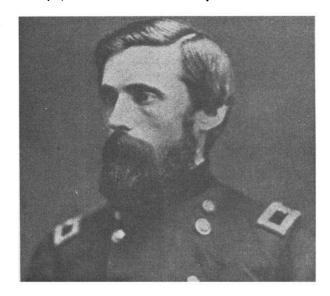


Figure 7. John Rawlins, the General's Chief of Staff during the Civil War and the self-appointed "keeper of Grant's conscience."

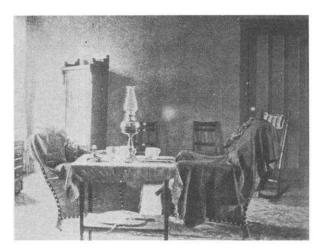


Figure 8. Two large chairs served as the General's bed after his near suffocation on the night of March 29, 1885.

might be latin the flutty aced excotoment of the moment. D' Thrady after Examining The pulse agreed that The time had come for its no. He was at the Severals right have? close by the miting deck upon whe loaded by mugo laid Ductor I vaia, the synuge filled conthe broudy is upon The deak back y you!" He bornes, tors drup and offered it to me. Haia. Use it bestor, it is just as a night to you . He did so up coting the town dy sute the night a fort y us ce to match the facturing pr nothing further was and, nor was There the slightest hesitancy or doubt as to the new of the brandy. The syringer had been prepared beforehand by me to be men in case of need, The energinary arou and it musued as intended after matching for a little times I perceived the flickering frile ded

Figure 9. A page from Doctor Douglas' diary describing the night in April 1885 when General Grant nearly died from hemorrhage.

attorney, the General's chief of staff during the Civil War. Rawlins' father was a drunkard who had died young, leaving his family in poverty, and bequeathing to his son a life-long fear of liquor [12]. Rawlins fell into the position of self-appointed keeper of Grant's conscience. He had an irrational attitude toward liquor and frequently discussed the drinking question with newspapermen, other officers, and really anyone who would listen to him. He issued stern and probably unnecessary warnings to Grant and intimated that only his presence at headquarters kept the General from lunging at the bottle. Rawlins often threatened to resign should the General resume his former habits. His continued presence can be taken as evidence of Grant's sobriety. Congressman Elihu Washburne, Grant's sponsor in Congress, wrote to Rawlins inquiring about rumors that the General was drinking very hard. Rawlins replied: "I will answer your inquiry fully and frankly, but first I would say unequivocably and emphatically that the statement that General Grant is drinking very hard is utterly

untrue and would have originated only in malice. When I came to Cairo, General Grant was as he is today, a strictly total abstinence man, and I have been informed by those who knew him well, that such has been his habit for the last five or six years" [13].

The evidence is that Grant in the early days did on occasion drink what for him was too much. He overcame the habit, but it did give his enemies a vulnerable area for attack which they used readily.

Grant, well aware of his prognosis, faced not only death but the prospect of leaving his family destitute.

Several months prior to the discovery of his cancer, the General was the center of news when the Wall Street firm of Grant and Ward, in which he was a silent partner, collapsed under the massive swindling of Ferdinand Ward. Grant, the chief victim of the swindle, was left penniless. His mental distress was magnified by the responsibility he felt toward family members and military comrades he had advised to invest in the firm.

Grant attempted to save the company by borrowing \$150,000 from William H. Vanderbilt, but this too was lost. The debt to Vanderbilt he considered a private obligation. He turned over to Vanderbilt his house at 3 East 66th Street in New York, the farm in Missouri, a house in Philadelphia, and all his war trophies. The millionaire, much to his credit, tried to return all these trophies but the family refused to accept. Vanderbilt ultimately turned the relics over to the Smithsonain Institute in Washington.

General Grant at the continuous urging of Mark Twain, a close personal friend, was persuaded to write his memoirs. In this way he hoped to assure his family financial solvency after his death. Twain's motives were not altogether altruistic. He was owner of a publishing firm, Charles L. Webster and Company, and he later published the work. Grant worked continuously on his manuscript and was able to complete his work only three days before his death. The memoirs were a tremendous financial success, and the Grant family later received over \$450,000 in royalties.

Doctor Shrady stated that one of his patient's greatest apprehensions was he might suddenly choke in his sleep [3]. After a severe spell of threatened suffocation during the night of March 29, 1885, this became a fixed conclusion. Thereafter, he passed his days and nights in a sitting position with his feet resting on a chair. (Figure 8.)

In the spring of 1885 after completing the chapter on the Chattanooga campaign, the General suffered a severe hemorrhage and nearly died. Doctor Douglas

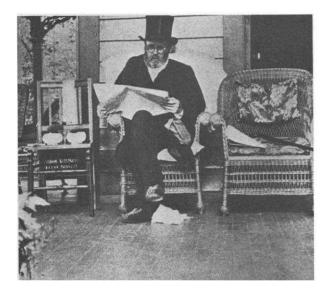


Figure 10. Last photograph of Grant, three days prior to his death. Two basins for expectoration and a sponge for clearing secretions can be seen at the General's right.

describes this night clearly in his diary [5]. (Figure 9.) After this, however, a large portion of the tumor mass sloughed, making breathing easier for a time. Morphine was given for pain, and when necessary cocaine was injected hypodermically. Digitalis was used to strengthen the heart. The General's weight dropped from nearly 200 to 146 pounds. The relentless advance of the disease is clearly described by Shrady: "The ulcerations of the pillars of the fauces extended to the right side of the palatal curtain, almost destroying the latter and eating away the adjoining side of the uvula. The same process spreading to the region at the right side of the base of the tongue enlarged and deepened the ulcer there Toward the last the extent of the disease could only be estimated by examination with the finger in the throat, and even by that means its limit downward could not be reached The enlargement and hardening of the glands under and around the angle of the lower jaw continued to the last, when the superficial and deep structures of that side of the neck and face constituted a mass of cancerous tissue \ldots "[3].

On June 16, 1885, Grant was moved to Mount McGregor, New York, a small resort village outside Saratoga known for its mountain air. (Figure 10.)

The General well knew the natural history of his disease and described it in a letter to Doctor Douglas. (Figure 11.) This letter also reaffirms his faith in his physicians, who were under constant criticism in the lay press. "Doctor, since coming to this beautiful climate, and getting a complete rest for about ten hours, I watched my pains and compared them with those of the past few weeks. I can feel plainly that my system is preparing for dissolution in three ways: one

Ih, Since coming to This builting climate, and sutting a complete rest for about tim hims, I have wotched my pains and tempored them with these of the part for weeks. I campul planky that my system is preparing for chissolution in Three was; one by home horagion by strong whatim and the third by examption. The first and erend are tickle to come at any moment to the time for the anine of the Wind contac Can be computed with almost mathematical curtains. with an increase of daily food I than fallen off in weight and strength very rapidly for the last two weeks Then can not be a hope of sing for beyond! This time. All any physician, or any muter of Them

Figure 11. First page of letter from Grant to Doctor Douglas in which the General accurately forecasts the natural history of his disease and reaffirms his faith in his physicians.

by hemorrhage, one by strangulation, and the third by exhaustion. The first and second are liable to come at any moment to relieve me of earthly sufferings. The time of arrival of the third can be computed with almost mathematical certainty. With an increase in daily food, I have fallen off in weight and strength very rapidly for the last two weeks. There cannot be hope of going far beyond this. All my physicians, or any number of them can do for me now, is to make my burden of pain as light as possible. I do not want any physician but yourself, but I tell you so that if you are unwilling to have me go without consultation with other professional men, you can send for them. I dread them, however, knowing that it means another desperate effort to save me, and more suffering" [14].

Ulysses S. Grant died on July 23, 1885, at 8:01 AM. He was sixty-four years old. He was obviously burdened by the guilt he felt over the collapse of Grant and Ward. His distress that anyone might think him even remotely guilty of fraud is reflected clearly in a note he left in his robe to be found by his wife after his death. "Look after our dear children and direct them in the paths of rectitude. It would distress me far more to hear that one of them could depart from an honorable, upright and virtuous life than it would to know that they were prostrated on a bed of sickness from which they were never to arise alive. They have never given us any cause for alarm on this account, and I trust they never will. With these few injunctions and the knowledge I have of your love and affection and the dutiful affection of our children, I bid you final farewell, until we meet in another and, I trust, better world. You will find this on my person after my demise" [15].

Summary

In early June 1884, seven years after leaving office as President of the United States, General Ulysses S. Grant was found to have carcinoma of the right tonsillar pillar. The General's physicians kept a detailed record of the course of their patient's disease. Speaking was quite painful for the patient, and his words and thoughts have been preserved on the scraps of paper on which he communicated to family, physicians, and friends. The diagnosis, symptomatic treatment, and inexorably progressive course of General Grant's mouth cancer taking place in an atmosphere of personal financial ruin are discussed in detail.

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