No case has excited a greater interest from a medical point of view than that of General Grant. Aside from the disease attacking a patient so widely known and so universally beloved, it has shown some features which are of surgical as well as of pathological significance. It is not definitely known when the throat trouble commenced, but probably it was early in June 1884, as at that time General Grant first complained of soreness in the right tonsillar region.

In October, after his return to New York from Long Branch, one of the lymphatic glands under the right angle of the lower jaw became enlarged, and he consulted his family physician, Dr. Fordyce Barker, who after satisfying himself as to the nature of the trouble referred him to Dr. J. H. Douglas for special treatment. The latter gentleman, also recognizing the serious nature of the malady, made the diagnosis of epithelial cancer, and commenced the use of palliative applications with the view of preventing the spread of the ulcerative process, then just commencing in the right posterior faucial pillar. For a time his endeavors were crowned with some success. Coincidentally, however, with severe mental strain, occasioned by pecuniary embarrassment and attended with great physical prostration, it was noticed that early in December 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 superficially ulcerated. This was the condition of affairs when, on February 19th, Drs. Barker and Douglas held a consultation with Drs. T. M. Markoe and H. B. Sands. The diagnosis of epithelioma was then unanimously confirmed and the judiciously conservative treatment of Drs. Barker and Douglas was fully endorsed.

On March 7th, when I first saw the patient, in consultation with Drs. Barker, Douglas, and Sands, it was found that the perforation at the base of the anterior pillar had extended so that its internal edge was converted into a mere bridle of tissue. The entire soft palate was uniformly reddened and swollen from inflammatory infiltration, and the surfaces of the right tonsillar region and adjoining portion of the vault of the pharynx were covered with a thick, consistent, yellowish exudation resembling sloughin tissue. This deposit was evidently the result of an acute process, engrafted upon the original disease, and partook in its clinical as well as physical features of many of the characters of a diphtheritic membrane. The enlarged and hardened gland under the angle of the jaw was then freely movable.

This view of the complication explains many of the grave symptoms which were subsequently associated with great prostration, but which were not directly traceable to the progress of the epitheliomatous degeneration.

Subsequent to this consultation visit an opportunity was offered the staff for examination of the microscopic specimens previously removed from the ulcerated edge of the posterior pillar of the fauces of the patient and prepared by Dr. George R. Elliott. I inspected the specimens in common with Drs. Barker, Douglas, and Sands, and agreed with them in expressing a due appreciation of the significance of the appearances presented. In other words, the microscopic
examination showed the disease to be epithelioma. The appearances are correctly summarized by Dr. Elliott in his recent paper, and are properly judged judged by Dr. T. E. Satterthwaite. There was, in brief, a more or less lobulated appearance of the epithelial mass, with great diversity in the shape of cell elements and marked evidences of epithelial proliferation; but above all, there were present distinct cell-nests, and a tendency of the new cell-formation to burrow into the deeper parts of the underlying tissue. Extravasations of blood were also found in the diseased specimens.

The expediency of a radical surgical operation for the removal of the growth was discussed early in the case. It was considered that such a measure would have involved the division of the lower jaw in front of the ramus, the extirpation of the entire tongue and the greater part of the soft palate, together with the removal of the ulcerated and infiltrated fauces and the indurated glandular structures under the right angle of the lower jaw. This was considered mechanically possible, despite the close proximity and probable involvement of the tissues adjoining the large arteries, and veins in the neighborhood of the ulcerations; but in the best interests of the distinguished patient the surgeons did not feel inclined to recommend the procedure. 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.

From the time that the exudation appeared in the throat there was noticed for several days a marked depression of the vital power of the patient. Owing partly to the progress of the cancer and partly to the extra-inflammatory condition of the throat there was an increased accumulation of mucous secretion, the expectoration of which was attended with occasional attacks of choking. The latter of themselves had a tendency to exhaust the patient, and on more than one occasion alarmed his family and the public. The most serious attack of the kind occurred about 2 a.m. of March 30th. The General for a time lost his composure, and believed that he was about to suffocate. His distress was extreme. Dr. Douglas, who was summoned, called for me on his way to the patient. By the prompt syringing of the throat by Dr. Douglas the accumulated mucus was dislodged, when, as usual, immediate relief was obtained. The apprehension of a recurrence of the difficulty was so great on the part of the family, that we remained with the General until the afternoon, when another general consultation was held, attended by Drs. Barker, Douglas, Sands, and myself. The patient was found somewhat weaker, but was not considered in a dangerous condition. The area of exudation was increased, as well as the swelling of the palatal curtain, accounting for the extra difficulty of swallowing and a thickness of speech which were painfully perceptible. The pulse was inclined to be intermittent, and was decreased in volume, but there was no elevation of temperature. This weakened condition continued, despite the administration of heart-stimulants (digitalis and coca) and the careful regulation of liquid diet, until the early morning of April 1, when the patient was rather suddenly seized with an attack of fainting, and death from heart-failure seemed imminent. Dr. Douglas and myself were with him at the time. The members of the family were around the patient expecting that every moment would be his last. It was feared that he could not rally, and the farewells were said. Finally hypodermic injections of brandy were administered, with the gratifying effect of riding the patient over a threatened collapse. In the course of the next four hours he was considered out of immediate danger, and was able to take his liquid food.
The patient did comparatively well for the next few days, the swelling in the throat gradually diminishing, and the exudation showing a tendency to become separated. On April 7th, however, a hemorrhage from the throat occurred about midnight, which ceased spontaneously, after about four ounces of blood had been lost. The occasion for the bleeding was the detachment of a portion of the slough from the right side of the pharynx. No large vessel was implicated.

During the twenty-four hours succeeding the hemorrhage the pulse became more feeble, frequent, and intermittent, and the temperature at one time rose to 102 degrees F. In order to relieve pain and procure sleep the patient was kept mildly under the influence of morphine, the latter being injected hypodermatically to the amount of six minims every six hours. The morphine was afterward decreased to six minims in the twenty-four hours, and but slightly exceeded that, save on one or two occasions, up to the day of his death.

The separation of the slough was anxiously awaited, and when it occurred the patient, as was expected, became much relieved of many of his more distressing local symptoms and of his depressed bodily condition. Then it was announced by the press that because the General had rallied, the physicians had erred in diagnosing the case, and consequently the patient’s chances of recovery were good. Much as this happy result was to be hoped for, the stubborn fact of the existence of the original disease, and of its steady progress toward an inevitably fatal issue was painfully apparent to the gentlemen watching the case. The return of the patient’s strength was not a surprise to his physicians. It was what they aimed to bring about by the treatment employed. The general exhaustion which was in a great measure independent of the cancer, was at this time most feared, and the treatment of that condition was naturally of the first importance. But the gratifying change for the better was believed to be simply of a temporary character. Death, directly or indirectly due to the extension of the throat disease, was a question of a few months at most. The surfaces of the throat covered by the inflammatory deposit presented a clean appearance after the deposit was separated, but the primary cancerous ulcerations of the palate and tongue never changed for the better. The original disease was always there, slowly but surely progressing resisting every treatment, defying every hope for cure, and grimly inviting the inevitable issue.

The temporary rally of the patient’s strength was taken advantage of in every possible way to conserve his vital forces and make his last days as comfortable as possible. The success attending these efforts was manifested in many ways. He, however, possessed, in a remarkable degree, the faculty of repressing his feelings, bearing his pain, and maintaining his mental composure, all of which was calculated to deceive a casual observer as to the real extend of his suffering. In the midst of this, and with a constant reminder of approaching death, he stoically gave himself up to the composition of his life-story, anxious only that he should live long enough to finish it.

The progress of the local disease was a steady one from the beginning. 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, destroyed the soft parts in the neighborhood, and burrowed its way downward beyond the reach of inspection or palpation. Toward the last the extent of the disease could only be estimated by examination.
with the finger in the throat, and ragged margin fading into surrounding indurated infiltration. 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 disease solidly connected with the ulcers of the inside of the throat. At no time did the swelling outside threaten to break down into ulceration, but its size varied from time to time as the result of accidental inflammatory deposits. These increases in size were treated by warm applications, which quickly reduced the tumor to its original and fixed dimensions.

The loss of the palate and adjacent soft parts, with the consequent lack of perfect control of the tongue, occasioned great difficulty in swallowing. This was most painfully marked toward the end. His nourishment, which for six months was always in liquid form, was seldom taken without some choking. These paroxysms, however, became quite severe. It was only by his supreme self-control and calm determination to sustain his powers to the end that he was enabled to take his allotted quantity of food. He was compelled toward the last to hurriedly drink the entire contents of the tumbler without taking a breath. At the completion of the swallowing a choking fit would occur, which would result in a regurgitation of the last portion of the food through the mouth and nostrils. The latter difficulty was in a great measure overcome by following the suggestion of Dr. Douglas, not to attempt to swallow the last mouthful, and consequently at no time was strangulation threatened. During all his illness the breathing was not mechanically impeded by the extension of the disease into the larynx. Just before he was transferred to Mount McGregor he rather suddenly lost his voice, never to regain it. This was due partly to thickening of the vocal cords by the inflammatory infiltration, and partly to a relaxation of the parts from general weakness.

A brief summary of the treatment is all that will be necessary to give now. Early in the disease, in order to eliminate every possible chance of error in diagnosis, the patient was placed under specific treatment, although the clinical history of the case gave only negative indications for its necessity. This treatment, although continued for a sufficient period, produced no effect in healing the ulcerations or in arresting the progress of the disease Iodoform was used as a local application to the ulcers, as well as gargles composed of salt and water, diluted carbolic acid, solutions of permanganate of potash and yeast. A four per cent solution of cocaine was occasionally applied to the painful parts with happy results, but it was never employed to any such excess as is generally believed by the public, nor were there any bad effects manifested from its administration at any time. The latter were carefully against with the full knowledge that the drug was a new one, and that only its cautious use was admissible. Red-clover was given quite constantly, but produced no effect whatsoever upon the local disease. It only proved itself useful as a laxative and was so employed as being the least harmful of medicines of its sort for continuous administration.

His food consisted of beef extracts, milk, eggs, and farinaceous materials, always in liquid form. In all detail matters bearing upon his food such appetite as he would occasionally manifest was the guide for any change. To rule was to deny him nothing he might crave.

During the last two days of his life he began to fail very perceptibly. On the evening of July 22nd, he signified his wish to be transferred to a bed. This was the first time he had left his easy-chair
for purposes of rest or sleep since early in March. Dr. Sands and myself, who had been previously summoned at the final consultation, agreed with Dr. Douglas that the end was near, and that nothing more was to be done than to make the patient as comfortable as possible. The General had then lost his ability to swallow, his pulse was 120 per minute and feeble, and his respirations 25 per minute and shallow. His consciousness gradually left him at midnight. Continuing to sink, he died without a struggle at 8:08 a.m., Thursday, July 23, 1885.

Much to the regret of the entire staff, no autopsy was permitted. The family gave as a reason for the refusal that each member was entirely satisfied with the diagnosis and treatment of the disease.

Thus ended a remarkable case. In commenting upon its features it must be conceded on behalf of scientific medicine, that everything possible in the present state of our knowledge was done to prolong life and make it as tolerable as the circumstances of the disease would admit. The diagnosis given early in the case was proved to be correct by the microscope, by the clinical history of the patient, and by the fatal issue. Appreciating the usual course of the disease, the staff at no time set any period for death until within the last twenty-four hours; nor did any member of it at any time during the patient’s illness give the slightest reason for alarming the public by sensational rumors. As its is, the disease had a much shorter course than usual, owing to the prostration of the patient’s system, dependent in a great measure upon other causes.

The cause of the disease in this case is largely conjectural. Epithelioma, as a rule, starts from local irritation, and unlike other forms of cancer, is not dependent upon hereditary predisposition to the disease. There must, however, aside from this, be a latent tendency toward cancerous troubles which is more pronounced in some individuals than in others, otherwise we should be unable to explain why simple and continued irritation would induce the disease in one case and not in another. It is, however, quite probable that the irritation 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 on the face of the fact that, of the thousands who smoke, but a very small proportion suffer from the disease.

As far as can be estimated, the cancer commenced only nine months before death. Fortunately the breathing was never affected by the involvement of the parts around the windpipe, nor was there any impediment to swallowing by the extension of the growth to the esophagus. Both of these conditions might have been obtained had the patient lived long enough to give an opportunity for the local disease to gain sufficient headway. The cancer presented an unusual feature in first invading the side of the throat rather than that of the tongue, as the latter is most frequently the original seat of this disease. The appearance in the throat of a sloughing process during the regular progress of the cancer was a circumstance worthy of note, and explained much of the exhaustion of the patient during one of his critical periods. If it had not been for this accidental complication the epithelioma would have taken its usual course, and the public would not have mistaken the extension of the inflammatory process for that of the cancer, and would not have been ready to believe that the original disease was disappearing when the sloughy deposit was discharged. The patient at the time was better of the complication, but not of the cancer. The latter never changed but for the worse.
The occurrence of hemorrhage from the erosion of the walls of the larger vessels in the neighborhood was believed to be eventually possible, but was at no time seriously feared, as nature had thrown out her safeguards in the shape of dense deposits around the branches of the carotid artery and jugular veins.

Although there was more or less constant pain of a gnawing character, the patient was happily spared that agony of suffering which is often associated with the invasion of the deeper parts of the tongue by cancerous disease. Had the latter occurred, it was proposed to divide the sensitive nerve of the tongue (gustatory) through the mouth, which operation oftentimes gives absolute relief. Such pain as existed, however, was kept under control by cocaine and morphine, so that the last wish of the patient that his death should be a peaceful one was fully realized.