MEMOIR

ON THE

LAST SICKNESS OF

GENERAL WASHINGTON

AND ITS

TREATMENT BY THE ATTENDANT PHYSICIANS.

BY

JAMES JACKSON, M. D.

BOSTON:

PRIVATELY PRINTED.

1860.
NOTE.—The following Memoir was drawn up, at the request of Mr. Everett, to be attached to his Life of Washington. By his kindness, a number of copies of this paper have been printed separately.

J. J.
MEMOIR.

The death of General Washington took place unexpectedly after an illness of less than forty-eight hours. He was in his sixty-eighth year, but had not begun to show much of the infirmities of age. Under the exposures of the active period of his life, and again shortly after he had engaged in the heavy cares and responsibilities of office in 1789, he had undergone severe acute diseases; but it does not appear that he had been suffering under any wearing or wasting chronic malady. His faithful biographer, Mr. Sparks, says of him, that “Since his re-
tirement from the presidency, his health had been remarkably good; and although age had not come without its infirmities, yet he was able to endure fatigue, and make exertions of body and mind with scarcely less ease and activity than he had done in the prime of his strength." * Such being the case, the circumstances of his short disease, its character viewed scientifically, and the treatment adopted by his physicians, have all been ascertained and discussed; and the remedies employed have been spoken of by some persons in terms of strong reprobation.

We derive the only original account of his disease from a statement made out by Colonel Lear within twenty-four hours after his decease, with an attestation to the correctness of this account made at the time, "so far as he could recollect,"

* Sparks's *Life of Washington*, p. 528.
by his excellent friend and physician, Dr. Craik. This account has the appearance of accuracy and fidelity. It is consistent with itself, and accords with what is now known to belong to the disease which cut short the days of this great man.

On the 12th of December, 1799, he was abroad on his farms, on horseback, from 10 o'clock a.m. to 3 p.m.; and "soon after he went out the weather became very bad; rain, hail, and snow falling alternately, with a cold wind." To the watchful eyes of his family there were no appearances of disease, though they looked for them, until the next day. He then complained of a sore throat, and it became evident that he had taken cold; "he had a hoarseness, which increased in the evening; but he made light of it." So far from feeling anything like serious illness on this 13th of December,
he seems to have been kept from "riding out, as usual," only by a snow-storm. In the afternoon he went out of the house to look after some work, which was not of an urgent character. He passed his evening as usual, and did not seem to be aware that his cold was uncommonly severe. When Colonel Lear proposed at bedtime that he should take "something to remove his cold," he answered, "No, you know I never take anything for a cold; let it go as it came."

It was in this night that his sickness arrested his attention. He was taken with an ague, and, between two and three o'clock on Saturday morning, (the 14th,) he awoke Mrs. Washington and told her that he was very unwell. He then had great difficulty in breathing, speaking, and swallowing. These are the symptoms which are characteristics, the essential character-
istics, of his disease. They continued till his death, which took place between 10 and 11 o'clock in the following night. There seem to have been some hours during which he did not swallow anything, in consequence of the distress attending any effort to do it. It was also so difficult to speak, that he did that only when he thought it important, and as briefly as was consistent with his habitual care to be distinct and definite in his expressions. It was the breathing, however, which caused him most distress. In regard to that the patient cannot choose, as he can in respect to speaking and swallowing. The efforts which he was compelled to make in breathing were extremely distressing, and occasioned great restlessness;—the more because his strongest efforts were insufficient to supply his lungs with as much air as his system had need of. It was from the inability to do
this that death ensued. He was in fact strangulated by the closure of the wind-pipe, as much as if a tight cord had been twisted around his neck. His intellect remained unclouded, and it is needless to say that he showed to the last those strong and great characteristics of mind and heart, by which his whole life had been marked.

What was this disease which cut down a strong man in so short a time? It was such as has cut down very many, no doubt, in times past; but it is a rare disease. It had not, at the time of Washington's death, been clearly described, so as to be distinguished from other diseases about the throat. It is now well known under the name of acute laryngitis; — inflammation of the larynx, — the upper part of the windpipe. It was about 1810 that this morbid affection was first brought into notice and distinctly de-
scribed by Dr. Matthew Baillie, of London, confessedly, while he lived, at the head of his profession in that great city. He published two cases seen by himself, both of them within a short period, both in medical men, and one of these a very dear friend of his. To these cases he added a third reported to him by a practitioner in London, which was evidently like the other two. He ascertained the morbid changes, by which these persons had been suddenly deprived of life, by examinations after death. It was ascertained by these examinations, as it has been by many made since in similar cases, that the disease consists in an inflammation in the mucous membrane of the whole larynx, including the epiglottis; but that this inflammation is not limited to the mucous membrane. It extends to the cellular membrane subjacent to the other, indeed to all the soft parts, includ
ing the muscles; and perhaps, in some degree, to the cartilages. From these morbid changes the epiglottis is disabled from the free and ready motion essential to its office, which is that of guarding the windpipe from the admission of substances passing through the pharynx. Hence one of the difficulties in swallowing, probably the greatest. In such a state the attempt to swallow any substance, liquid or solid, would be attended by an instinctive effort of the epiglottis to shut up the larynx, as it always does in health during the act of swallowing. But this instinctive effort must cost great pain; and it is an effort which could not succeed in the most severe state of the disease. Thus the principal difficulty in swallowing is explained. Another difficulty in swallowing arises from the state of the pharynx. The inflammation of the larynx passing over its posterior part, in
some if not all cases, spreads to the pharynx, and disables that part from performing its office in carrying down the liquids or solids brought to it.

Just below the entrance to the larynx we find the delicate structures belonging to the organ of the voice, and here is the narrowest part of the air tube. In these parts, a common acute inflammation of their mucous membrane will cause soreness and hoarseness; but when the disease extends to the subjacent cellular membrane, so that all these parts are thickened by the distention of the small bloodvessels, and the more if there take place an effusion of any fluid into this cellular membrane, it is seen at once how these soft parts must be swollen. Now this swelling occasions a difficulty, if not an impossibility, of motion in the delicate parts belonging to the organ of the voice, and accounts for the difficulty
and at length the impossibility of speaking. At the same time we see how the passage of the air is impeded, and at last entirely obstructed, producing the difficulty of breathing and at length the strangulation.

Thus this disease, so suddenly destructive of life, is among the most simple in its nature. One readily understands that his fingers may be inflamed, that is, become red, swollen, indurated in all the soft parts, and painful, to such a degree as to make motion in them very difficult and at length impossible. But all this may take place without interfering with functions important to life. But let the organs by which the voice is formed and through which the air must be passed for the supply of the lungs,—the organs through which the breath of life must have an open road,—let these organs be swollen and rigid so as to block up this
passage, and we readily comprehend that life may be arrested in young or old, in the strong as well as in the feeble, in a very short space of time. It follows that the only question in a disease of this kind, as it occurs in adults, is whether we can prevent or remove the fatal obstruction which has been described as characteristic of this disease.

There are, however, some further remarks to be made on the disease, before discussing the treatment of it. Any one conversant with the subject will see at once how much acute laryngitis resembles the common affection which we all know as a sore throat from a cold. Though the words a cold are employed with reference to any disease which is thought to arise from an exposure to a change of temperature, or to cold and damp weather, they are most commonly used in reference to an attack in the nose,
or in the windpipe. These are called colds in the head, or colds in the throat. The cold in the throat is marked by a sense of slight soreness in that part, especially felt in deglutition and in coughing, and by hoarseness in the voice. Some cough soon follows and presently an expectoration of matter, at first watery and afterwards thick and glutinous, and more or less opaque. In these cases there is an inflammation of the mucous membrane of the larynx. The disease may begin in the nasal passages, when it is commonly called a cold in the head, or a nasal catarrh; and this does most frequently take place first; but whichever part is affected first, the inflammation may extend from this to the other. Further, when the larynx is affected, the inflammation may also pass downward to the bronchi, which are the ramifications of the windpipe in the lungs. Then the
disease gets the name of pulmonary catarrh, or bronchitis.

To one who understands the above statement, it will be plain that the cold in the throat, when there take place soreness in the throat, hoarseness, a slight difficulty in deglutition, and more or less cough,—in other words, a hoarse sore throat, is the same thing as the acute laryngitis. It is assuredly the same thing, except in degree. In the disease first described, the laryngitis, the inflammation is more severe, and it is not confined to the mucous membrane, but extends to the other tissues. The mucous membrane may be called an internal skin; and like the skin it is connected with other parts by a cellular membrane. Now if the skin be inflamed in its external surface only, in one man, and in another an inflammation of the skin should pass through it into the subjacent cellular membrane, the
swelling would be much more in this last case than in the first. The greater swelling in the second case would be attended with more general affection of the system than would occur in the first one. So far the difference between the common affection of the larynx, in ordinary colds, and that in the severe disease under consideration, is illustrated by the supposed inflammation in the skin in the two men. But there is one great difference. The swelling of the skin is not productive of any serious inconvenience; not so in the larynx. That is the tube through which the air passes to the lungs in respiration, and in one part the passage is very narrow. In this part the swelling must occupy the calibre of the tube; in fatal cases it fills up the air passage; and the effect of this is the same as if a cord were tied very tightly around the neck. As the passage is filling up, the air passes
with more and more difficulty, and at last it cannot pass at all. Even this, however, does not state quite the whole. In the last hours of life, the lungs do not get air enough to produce the requisite change in the blood; and likewise the carbonic acid gas, which is an excretion from the blood, and is usually discharged at once from the lungs, is retained in some measure and acts as a poison. From this imperfect renewal of the blood, if we may use the expression, arises the livid countenance in the last hours; and under this state of the blood every part of the body is constantly losing its vigor. Thus, before the larynx is absolutely blocked up, the muscles of respiration become incapable of the effort requisite to expand the thorax, and death ensues, although there may be a very small passage still left open at the last moment of life.
We are prepared now to consider the treatment proper in acute laryngitis, in connection with that adopted in the case under consideration. It has been thought by many persons, medical and non-medical, that General Washington was not treated judiciously; and some, perhaps, believe that by a different treatment his life might have been preserved. Sixty years have passed since his decease, and the disease, which was fatal to him, is understood now much more perfectly than it was in 1799. To what result have we arrived? Has any treatment proved to be more successful than that adopted in his case? He was bled, he was blistered, and calomel and antimony were administered internally. Whether these remedies were employed early enough, and whether to too great an extent, or not sufficiently, are questions to which we will return presently.
What was the treatment adopted by Dr. Baillie in the cases of his medical friends? He directed bleeding, both general and local, and his patients not only agreed with him, but, being medical men, directed it for themselves in his absence. This happened at a period comparatively near to that of Washington's case.

What do the best teachers say at the present day? To answer this question fully and accurately would require great research. One need not, however, hesitate to say, generally, that they recommend bleeding and blistering. In addition, the English teachers advise the use of mercurials carried to the point of salvation, and our own did the same until very lately. Some of them, perhaps, do it now. Some, if not many, would add antimony and opium to the calomel, or other preparations of mercury.
We believe that the lectures by Dr. Watson of London are received, as good authority, by as many persons who speak the English language, as the work of any writer of our time on the theory and practice of medicine. In the last edition of his lectures he advises bleeding freely at an early period of acute laryngitis, with the qualifications which every discreet and experienced practitioner would assent to. So far, then, it would seem that the treatment adopted by Dr. Craik and his medical coadjutors is the same which has been, and is now, directed by physicians of the first standing.

Let us look into this matter somewhat, and see whether bloodletting in acute laryngitis appears to be a rational practice. To what cause is the danger to life to be attributed in this disease? The answer has already been given. The danger arises from the filling up of a part
of the windpipe. In what way, or by what material is the windpipe filled up? By an extra quantity of blood in the small vessels of the part, similar to what most persons may have seen in a violent inflammation of the external surface of the eye. By this blood in the first instance, and in part, is the tube filled up; but further, by the effusion under the mucous membrane of the larynx of a watery liquid, called serum, or serous fluid. When a man is bled largely he usually becomes pale. This happens because the small vessels of the external surface contract under the loss of blood, and the skin is seen to be white, or sallow, according to the complexion of the individual. If, in the disease under consideration, the small bloodvessels in the morbid part will contract as those of the skin do, after the abstraction of blood, we may hope for relief, as long as that
contraction is maintained. Not only so; it will be found that if this contraction takes place in the diseased part, the effusion of serous fluid is more readily absorbed than it would otherwise be.

It must be confessed that the effect, here described, on the small bloodvessels in the morbid part, is not certain to take place in consequence of the loss of blood. The success of the measure depends mainly on the period of the disease, at which the bleeding takes place. The chance of success is great in the very beginning of the inflammatory process; but it is less, the later the period at which the remedy is employed. There is not, however, any other measure by which effectual relief is so likely to be produced as by blood-letting. If anything else can be equally effectual, in so short a space of time, it must be some local applications to the part affected. There are cases of dis-
ease in the larynx, where nitrate of silver and other articles may perhaps be applied to the parts affected, with great benefit. But in the irritable state of the part in question, in this acute disease, such applications must be attended with very great difficulty, and apparently with great hazard. The success of this treatment in cases of ulceration in the mucous membrane of the larynx, in a chronic disease, does not prove what would happen in the acute disease under consideration.

But there is a difficulty which ordinarily attends the bleeding in this disease, to which may be attributed the failure in the largest proportion of cases, in which it has been tried. It is that the disease usually commences under the familiar form of a common cold in the throat, so that at first no alarm is felt. Nor ought there to be an alarm in such a case. It
has been shown above that such an inflammation as occurs in a common hoarse cold may suddenly increase in importance by extending from the mucous membrane or tissue, to the surrounding tissues, especially to the subjacent cellular membrane. Thence comes the tumefaction, which, acting mechanically, blocks up the passage of the air into the lungs. It is in this first stage, before the fatal extension of the inflammation has occurred, that the disease might be the most easily arrested. But who would advise the active treatment requisite for this purpose in every case of a hoarse cold, which is the first stage? In every such case the severe disease may ensue. But what is the chance that it will ensue? A very large proportion of persons, probably three quarters of the community among us, have such a cold once a year, and not a few have such an attack twice or
three times in a year; but the change into the severe disease, called acute laryngitis, is among the most rare occurrences. It does not take place in one case out of a million. But if it happened in one case in a hundred, it would not be justifiable to resort to a severe treatment in each one of a hundred cases, in order to save one of them from the fatal change. There is no doubt that every discreet man would choose to incur the slight hazard of the severe disease, rather than to resort to a copious bleeding every time he had a hoarse sore throat. Washington was evidently familiar with a cold in his throat in his sixty-eighth year, as other men are. He probably had never suspected the possible issue of such a cold. But if he had been told that the chance of such an issue was one in a million, or even one in a hundred,
would he have consented to a copious bleeding? We think not.

Here we see the real difficulty. At the time when the danger is manifested, the disease is not strictly new; it has not just commenced. In looking over the histories of cases of acute laryngitis we find that the disease, under the form of a hoarse cold, has existed from a few hours to a few days, before it arrives at the state when danger to life is suspected. It cannot be said that the bleeding, at that stage of the disease, can be relied on, as it might have been in the very commencement. Yet this remedy, even then, affords a chance of relief, and the more when the disease has not remained long in the first stage. In Washington's case the first stage was of short duration. Bleeding was resorted to early, by his own direction. But that bleeding was
nominal. His wife objected to it, because the patient was old, and the bleeding had not been directed by a physician. We must give her the credit of exercising a wise caution. Of course she did not understand the nature of the disease; she did not suspect how rapidly it was pressing forward to a fatal termination. Even the delay of the three or four hours which had already passed away since he waked her up in the night, was a most serious loss. When Dr. Craik reached him some hours afterwards, he prescribed a new venesection. He was right; it is in such circumstances that the *aniceps remedium* is justifiable. What would medical critics, what would posterity have said, if this good doctor, when such a patient was in his hands, in imminent danger from an affection which was manifestly due to inflammation, had folded his arms, and said, "There is no possi-
bility of giving relief; but you may let him inhale the vapor from some herb tea”?

Although bloodletting is the great remedy, there are other modes of treatment which may be employed in aid of it, or without it. Calomel and antimony, usually with the addition of opium, are thought by many physicians to be proper articles for the relief of this laryngitis. Colonel Lear says that calomel and antimony were given to General Washington, but he does not say in what doses, nor whether more than once. There is not any reason to believe that they were given in large doses; though I think Dr. Craik and his coadjutors have been reproached on this score. In 1799 the use of mercurials in inflammatory diseases was very rare, I believe, in Great Britain, though it was very common in this country. At the present day the reverse is
true. At least in New England the practice is now relied on much less than in old England. Fashions change, it must be acknowledged, in medicine as in other things. Probably the result, at the end of another fifty years, will be that mercurials will not be administered in either country as freely as they have been heretofore, but that they will not be abandoned altogether.

It would not be well to go further into the subject on this occasion. We have considered the bloodletting more fully perhaps than was quite necessary, but it has been to defend the reputation of Dr. Craik and his medical friends, who we think did as well, at least, as any of their critics would have done in the like case. We must acknowledge an unwillingness not to think well of Dr. Craik, who was the personal friend of Washington through his life.
Passing by some other modes of treatment for acute laryngitis, we should not omit to notice one, on which much reliance is placed at the present day, when it becomes obvious that all other remedies are ineffectual. This consists in an opening into the trachea, below the diseased part. In this way life may be prolonged while a chance is afforded for the subsidence of the disease by a natural process, after which the wound may be allowed to heal up. This practice has been resorted to with success in various instances of obstructions in the windpipe, and especially of late in croup. In this disease of children and in the acute laryngitis of adults, it is important that the surgical operation should be performed, before the vital powers have been too much exhausted, by the painful and wearing struggles for life.

But it is time to bring this memoir to
a close. On some points the writer has gone into a minute statement of particulars, and into a discussion of principles, as to the pathology and as to the therapeutics. But this has been done only so far as seemed to him necessary to make the subject understood by non-professional men; not with any pretence to bring into view all that relates to the disease or its treatment. If he seem to have lingered on the subject too long, it will be remembered that the interest which is inspired by every circumstance in the life of Washington, attaches, with melancholy intensity, to the disease by which that life was suddenly brought to a close.

Boston, March, 1860.
MEMOIR

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JAMES JACKSON, M. D.

BOSTON:

PRIVATELY PRINTED.

1860.
Your letter of the 25th inst. is received with much satisfaction.

I have read with great interest the "Memoir on the last illness of General Washington." You know as well as I do all that you have written on the subject of medicine. In fact, an illustration of the correctness of all that you have written would not have surprised me in the least. I am very much pleased with the way in which you have written.

You are correct in all you have said. If the word is lost, it is lost.

I am very much pleased with the way in which you have written.

Sincerely yours,

[Signature]

Sept. 25th, 1860.