he was dead before he had been three minutes in bed. On examining the body, the prostate gland was found extensively ulcerated; and it seemed that the passing of the instruments over the ulcerated gland had produced that impression on the nervous system that proved thus instantly fatal. I witnessed another operation performed under exactly the same circumstances; except that there were several stones, and, therefore, that it was not so soon over. Before the patient was taken back to bed he was in a state of perfect coma, with stertorous breathing. In this condition he remained for some hours, and then died. A man was in the hospital with stone in the bladder, under the care of Mr. Ewbank: there was a consultation on the case, the question being whether the patient should undergo the operation or not. The symptoms were exactly similar to those which occurred in the two last-mentioned patients; and on the circumstances being stated to him, Mr. Ewbank at once gave up all thoughts of the operation. It was well that he did so; for on the following day the man died, and an extensive ulceration of the prostate, with disease of the bladder, was discovered on dissection.

Of course you may do a great deal towards preventing such a catastrophe by looking thoroughly into the case at first, and it will indeed, rarely happen that you may not anticipate and avoid the danger. Still such a case may occur as that of a patient suffering in an unusual degree from the impression which the operation makes on his nervous system, and in which, by the proper and timely exhibition of stimulants, the system may be supported under it, and the patient's life preserved.

LECTURE III.

ILLUSTRATIONS OF SOME IMPORTANT CIRCUMSTANCES CONNECTED WITH OPERATIVE SURGERY. (*Continued.*)

In the preceding lecture, I explained to you some of the ill consequences of operations, which are met with either at the time of their being performed, or immediately afterwards. In the present lecture, I mean to draw your attention to some other sources of danger, the results of which are not rendered manifest until a later period.

The effect of any local injury depends, *first*, on the nature and extent of the injury itself; and *secondly*, on the condition of the individual at the time of the injury being inflicted. In one state of constitution, the slightest and simplest wound may produce ill consequences, which even the largest and more complicated wound would not produce in another; and it is the duty of the surgeon, before he has recourse to an operation, to study the causes of this difference, and to make himself acquainted with the circumstances

on which its success or failure may depend. Evils which are anticipated may often be prevented, and at all events, it is always worth while to know what are the evils which may probably or possibly arise, in order that you may determine how far you are or are not justified in encountering them.

An operation may be followed by severe phlegmonous inflammation. You may remove a loose cartilage from the knee-joint, and in the course of forty-eight hours the synovial membrane of the joint may be distended with synovia, with great pain in the part, and symptomatic inflammatory fever; or there may be a similar phlegmonous inflammation of the stump after amputation of the thigh, ending, if it be not checked by art, in suppuration and abscesses on the surface of the bone, destruction of the periosteum, and death of the bone itself to a greater or less extent. In such cases it may be necessary to have recourse to what is commonly called antiphlogistic treatment, to take blood from the arm, to give purgatives and diaphoretics, and even to subject the patient to the influence of mercury. It is impossible to say, in all cases, whether it be or be not probable that symptoms of this kind will show themselves, but you may, nevertheless, be justified in expecting them in many instances. A person of plethoric habit, of good constitution, who has been living rather freely, without actual intemperance, is the individual in whom such inflammatory symptoms most frequently appear. You may especially distrust a patient, whose urine is unusually loaded with lithic acid, whether it be a clear high-coloured secretion, depositing red or brown crystals of lithic acid, or whether it becomes turbid on cooling, having a red sediment, composed chiefly of the lithate of ammonia, and staining the bottom of the vessel which contains it, so that it resembles in appearance what they call a pink saucer. The secretion of the kidneys, where it habitually exhibits the appearance which I have just described, always indicates an inflammatory condition of the system. The individual thus affected is in a situation which may be compared to that of a man who has a sword suspended over his head by a thread which may break, so as to put his life in jeopardy at any moment. You must not be surprised, if he be suddenly, and when he supposes himself to be in the best possible health, seized with inflammation of the pleura, or of the knee, or with a brain fever, and you may be assured he is so unfavourable a subject for an operation, that no operation ought to be had recourse to, except as a matter of absolute necessity, and with a view to avoid some very great and pressing danger. Under any other circumstances, let the operation be postponed until, by a regulated diet, by exercise taken daily, not to an immoderate extent, but yet so as to induce a free perspiration, by the exhibition of purgatives, and perhaps of small doses of the alkalies, you have brought the patient into a better state of health.

But the dangerous inflammations which occur after operations have, for the most part, an entirely different character from that of which I have just spoken. They are low asthenic inflammations, connected with a depressed state of the general system, and requiring

a very different treatment from what is required in cases of active phlegmonous inflammations. Of these the most common is that which assumes the form of an exanthematous disease, and which we call erysipelas.

There is no greater source of danger to patients after operation than this; nor is there any more abundant cause for mortification to the surgeon, showing itself, as it does, not only after the most severe and complicated operations, but after those that are regarded the most trifling; not only after lithotomy, or an amputation of the thigh, but after the removal of an encysted tumour from the scalp, or the division of the prepuce on account of a phimosis, or the laying open of the smallest sinus in the groin, or near the rectum. Perhaps the wound made in the operation is healing favourably, and you suppose that your labours are brought to a prosperous termination, when some day, on visiting your patient, you find that he has had a rigor followed by fever, and at the end of twenty-four hours you find him labouring under erysipelas, which endangers his life, and keeps your mind in a state of suspense for the next fortnight.

It would be foreign to my present purpose to give you a history of erysipelas, or to direct the treatment which it requires. My object is merely to explain the peculiar circumstances under which it commonly arises, and to consider the means of prevention.

It has been supposed by some, that erysipelas is contagious, and that it is from this cause that you find it prevail to so great an extent at particular periods in hospitals all over the world. But you must be aware how difficult it is to distinguish between diseases which are communicated from one person to another, and those which affect many individuals about the same time, because they happen to be placed under similar circumstances, and are subjected to the same external influences. Now it has been my lot to live, during nearly the whole of my professional career, where I had abundant opportunities of watching the origin, progress and termination of this terrible malady, and the result is that I am led to believe that it is not really contagious. Exposure to cold and damp, and especially to the influence of these two causes acting in combination with each other, may be the immediate exciting cause; but, if I am not greatly mistaken, it may in nine cases out of ten be traced to a still higher source than this, namely, to a depressed and debilitated condition of the patient's constitution. The depressing effects of the cold north-eastern wind, which in this country prevails on an average for nearly three months between winter and summer, are felt and acknowledged by all, and erysipelas is never more prevalent than it is just at this period of the year. We may in the same manner explain the frequent occurrence of it during a season of extreme cold in winter, or of intense heat in summer. Then you may observe that it occurs especially after operations in which the patient has lost an unusual quantity of blood, and in those who either before or after the operation have been kept on a very low system of diet. We cannot regulate the winds of the spring months, nor the heat of summer, nor the cold of winter, but we may, I am satisfied, do a

very great deal towards counteracting their influence and lessening the danger of erysipelas, by using every possible precaution against an abundant hæmorrhage, by the prudent and judicious administration of nourishment, and by a cautious exhibition of such stimulants as wine and beer to those who are accustomed to them when in health. I was educated in the belief that the thing to be most apprehended after an operation was some kind of inflammation; and that the way to prevent inflammation was to keep the patient on low diet, and as long as I acted in accordance with these views, I was meeting with erysipelas at every turn of my practice. Many years have now elapsed since I became convinced that these doctrines are erroneous: that an operation is a shock to the system, making a great demand on the vital powers: that the effects of this shock are often much aggravated by loss of blood: that a very scanty diet actually makes the patient more liable to certain kinds of inflammation than he would be otherwise; and that our rule of practice ought to be rather to sustain his powers by allowing him wholesome nourishment, and not to add to the influence of other depressing causes that still worse one of starvation. I assure you, and I assert it most positively, that if you attend to the rule which I have just laid down, although you may not prevent erysipelas altogether, you will find it to be a rare instead of common occurrence, and I can scarcely express to you how much greater has been the comfort of my life, and how much less cause I have had for professional anxiety, since I altered my mode of practice, than was the case formerly.

Let me not, however, be misunderstood as recommending that the subjects of operations are to be crammed with animal food, or that wine and porter and brandy are to be freely and indiscriminately administered. As I have already explained to you, there are some individuals who require to be placed on a more moderate system of diet than that to which they have lately been accustomed, to prepare them for an operation; and in the majority of cases, food should be given cautiously for the first day or two after the operation has been performed, and under all circumstances it will be necessary for the surgeon to watch the present symptoms, to make himself acquainted with the patient's previous habits, and to be careful not to administer either animal food or stimulants in such quantity as to excite the pulse, or increase the heat of the skin; or to load the stomach with that which it cannot easily digest. It is dangerous to keep a patient very low who has been accustomed to a very full diet; and it is also dangerous all at once to supply a very full diet to one who has been accustomed to a very scanty fare. An individual who has been in the habit of drinking nothing but water, will require wine and porter and brandy only in a very small quantity, or on extraordinary occasions; while another, who is habituated to the use of such stimulants, cannot be deprived of them more than a very few days, without suffering materially from the privation. I have often in this hospital found it expedient to give a gin-drinker a moderate quantity of gin even on the day immediately following some operation or dangerous accident.

Another inflammatory affection which sometimes arises as the consequence of an operation, has its seat in the veins which have been tied or divided. This occurs under circumstances very similar to those under which we meet with erysipelas; beginning some days after the operation was performed, and being frequently ushered in by a rigour, but being a more formidable disease than erysipelas, inasmuch as it attacks more important organs, and as it generally terminates in suppuration, and in a collection of pus in the cavity of the inflamed vessel. This disease when once begun is little under the dominion of remedies, but much may be done towards preventing its existence; and all the experience which I have had on the subject would lead me to believe that, like erysipelas, it has its origin in a low asthenic state of the system, and that those persons are especially liable to it who have been much lowered by hæmorrhage at the time of the operation, or by a too scanty diet before or afterwards. Arterial, in some instances, accompanies venous inflammation, and it is to be attributed to the operation of the same predisposing causes.

Another source of mischief after operation is what may be called *gangrenous inflammation;* that is, an inflammation which proceeds almost immediately to a termination in gangrene and sloughing. This assumes a somewhat different form in different cases.

A large gross fat man, who had been much addicted to drinking spirits, was admitted into this hospital, when I was assistant-surgeon, with an enormous irreducible inguinal hernia in a state of strangulation. I divided the stricture, which was in the external abdominal ring, and did nothing more. The bowels acted freely afterwards, but on the third day the skin in the neighbourhood of the wound was inflamed, and in some places, there were vesications on its surface. The inflammation extended rapidly to the rest of the integuments of the abdomen, and in two days more the whole of them were in a state of mortification. The patient died.

You meet with the same disease, though not exactly in the same shape, in what is commonly called "a sloughing stump" after amputation. The stump inflames, and becomes swollen, painful and tender. You are compelled to loosen the bandages. A dirty serous discharge exudes through the dressings. After four or five days you remove the plasters and find not only that there is no attempt at union, but that the whole of the cut surfaces are in a state of gangrene. Sloughs become separated, but others are formed, and thus a rapid destruction of the soft parts takes place, leaving the bone projecting, deprived of periosteum, and dead in the centre.

In another case a diffuse inflammation extends along the cellular membrane producing an effusion of serum and ill-formed pus. At first the surface of the skin has only a dingy reddish hue; but the cellular membrane underneath has lost its vitality. Mortification of the skin follows in patches, and often takes place to a great extent. Sometimes the progress of these frightful changes is rapid, the whole of a limb being involved in them, and the patient sinking, from the impression which they have made on his system, in the course of five or six days. At other times the progress is comparatively slow,

and a fortnight may elapse before the fate of the patient, as to life or death, is finally determined.

But whatever may be the exact character which the gangrenous inflammation assumes, you may be assured that it is always an indication of a low and depressed state of the patient's constitution. According to my experience, it occurs especially in those who have been habitually intemperate, indulging in the free use of spirituous or strong fermented liquors. In persons of such habits it is always prudent for you to avoid the performance of an operation, except it be a matter of absolute necessity. If that necessity should exist, and symptoms of gangrenous inflammation should ensue, bear in mind that to treat it by blood-letting, and what are commonly called antiphlogistic remedies, is, for the most part, the way to make it more rapid in its progress, and more destructive. A treatment the directly opposite to this is what is really required; and with a view to prevention, the safest thing to do, in the case of a person of intemperate habits, is to allow him a certain quantity of his accustomed stimulus from the beginning, that is, even from the day of the operation.

But it is not in drinkers of spirituous and fermented liquors alone that we meet with this kind of inflammation. Persons of a broken constitution from other causes are liable to it also. Dr. Prout has observed that those who labour under diabetes are affected with carbuncle in a great number of instances. A gentleman labouring under diabetes received an accidental wound on one side of his head. Within a week he was dead, a victim to extensive inflammation and sloughing of the scalp. If he had been in health, such a wound as he received would have been of no consequence; but in the state in which he was, the removal of a small encysted tumour from his scalp would have been equally fatal. I have had the misfortune of losing three patients out of the great number on whom, in the course of the last thirty years, I have performed the operation of applying a ligature to internal piles. In each of these cases, on examination after death, I found diffuse inflammation and a sloughy condition of the cellular membrane between the mucous membrane of the intestine and muscular tunic, and also externally to the muscular tunic as high as the mesentery, and even between its layers. In one of them there was a diseased condition of the kidney, and the urine, which was carefully examined by Dr. Prout, was found to be loaded with albumen, and of a very high specific gravity (1·035). In the second there was a diseased condition of the kidneys also. The urine unfortunately was not examined, but you will know pretty nearly what it must have been when I tell you that in the bladder I found a solid oval body of the size of an almond, and having an appearance like that of amber; in short, a fibrinous calculus; and, as it happens, the only specimen of this variety of urinary deposit which has come under my observation. The third case was that of a patient who had laboured under disease of the digestive organs, and was of a broken constitution. At first I had refused to perform the operation on him, on account of the general state of his health, and advised him to return to his residence in the country.

He came back to me, however, some time afterwards, suffering so much inconvenience that he said he must get rid of the disease at all hazards. I have told you the result. Since these cases occurred, wherever I have had any doubts about the state of the patient's health, I have always examined the urine. I do not say that the existence of albumen in the urine is in all cases to prevent an operation; for I have no doubt that it is sometimes accidental and temporary: and you must be aware that in some instances (as in those of hæmorrhoids attended with very profuse discharges of blood), the danger from the disease may be so great that, even if there be danger from the operation, such danger must be overlooked. Still, this condition of the urine should always be regarded as a reason for proceeding very cautiously; and I should be always very unwilling to have recourse to an operation where it proved to be habitual.

For the sake of making the subject as plain as possible, I have described these varieties of inflammation, which sometimes follow operations, as being quite separate and distinct from each other. Still in practice you will not unfrequently find them existing in combination. One patient will have erysipelas terminating in sloughing and abscess, and when you examine the body after death, you will find the veins to be filled with pus also. Another has diffused inflammation of the cellular membrane in the first instance, but after some time inflammation bearing all the characters of erysipelas shows itself in the integuments. Again, erysipelas may all at once proceed to gangrene and sphacelus. A young woman had a small scirrhous tumour removed from her neck. On that very evening she had a rigor. On the following morning there was well-marked erysipelas of the skin of the neck, extending downwards over the whole of the anterior part of the chest. No proper reaction had taken place after the rigor; the pulse was small and weak, and the extremities were cold. In a few hours the whole of the skin affected by the erysipelas was in a state of mortification; and in less than forty-eight hours from the time of the operation the patient was no more. A poor girl, who came from the country to be admitted into St. George's Hospital, on her journey had the skin of one breast slightly chafed by the whalebone of her stays. On the following morning she had a severe rigor, from the effects of which she never completely recovered. Erysipelas supervened, beginning where the skin had been chafed, and extending rapidly over the whole of the forepart of the chest. The skin thus affected became almost immediately gangrenous, and she died with it in a state of complete mortification in the course of three or four days from the commencement of the attack. Both of these cases occurred in the summer, when the heat was most unusually intense; and they taught me a lesson which I have never forgotten—namely, that operations which are not of an immediate necessity should not be performed when the temperature of the atmosphere is very much above the ordinary standard.

There is still another class of inflammatory affections to which the attention of our profession has of late years been much directed, consequent on accidental injuries, and on surgical operations, which

I must not pass over unnoticed. The seat of these inflammations is not in the part which has been injured, or which has been the subject of the operation, but at a distance from it. A man has an injury of the head, and, when he dies some time afterwards, you find deposits of pus in the lungs, or abscesses of the liver. In another case there are symptoms of cellular inflammation and suppuration about the neck of the bladder after lithotomy; but death does not take place immediately: the case is protracted; and before he dies, the patient suffers from swelling, inflammation, suppuration and sloughing of the parotid glands; for there is a purulent deposit in each of the knee-joints. In other cases there are deposits of pus in the cellular membranes, or of serum, lymph and pus, in the perito neum or pleuræ.

Now it has been supposed by some that, in these cases, the secondary disease is always connected with venous inflammation, and that the circumstance may be explained by supposing that pus secreted by the inner surface of the veins is carried into the torrent of the circulation, and afterwards deposited, even without any inflammatory process, in some other and distant organ. I cannot, however, believe that this is the true theory of the disease. In a case of compound fracture of the right leg, in which the patient died at the end of a month with deposits of pus in the lungs and liver, and in the cellular membrane over the abdominal muscles, and near the left (or opposite) groin, the veins were most carefully examined everywhere, but no venous inflammation could be detected. In another man, who died after a surgeon had most injudiciously applied the caustic potash to the skin over the occiput, so as to make a slough of all the soft parts, and expose the bone itself, I had the opportunity of examining the body after death, and found the *dura mater* detached from the inside of the bone to the same extent as the destruction of the pericranium had taken place on the outside; and no trace either of venous inflammation in the injured part, or of suppuration on the surface of the dura mater; while the peritoneum was universally inflamed, and the intestines were agglutinated to each other by coagulated lymph. I might, if it were necessary, produce a great number of similar examples; but these are quite sufficient for my present purpose. Having now watched the progress of a great number of cases of this description, I am led to believe that these secondary inflammations are to be attributed not to the entrance of pus into the vessels, and the transfer of it when secreted in one part through the medium of the circulation to some other part of the body, but to the long continuance of a low febrile excitement of the system. However that may be, these cases are replete with danger. The rule is, that they terminate fatally; and the exceptions to this rule are very rare.

Still such exceptions exist, and every now and then you will find the secondary inflammation to subside without going on to the deposit of pus. One such case is probably in the recollection of some of those whom I now address. It was that of the last patient (George Bean), in whom I tied the external iliac artery before I

resigned my office as surgeon to the hospital. On the evening after the operation, the whole of the abdomen became painful and tender; the pulse was frequent; the skin hot; the tongue dry and brown. Some blood was taken from the arm. On the following day, as the symptoms continued, Mr. Cutler, in my absence, repeated the bloodletting. On the second day after the operation, the symptoms being not at all relieved, I destroyed the adhesion of the edges of the wound with a probe, and gave exit to some sanious matter collected within. Finding that the man had been a dram-drinker, instead of having recourse to further depletion, I now ordered him some medicine containing ammonia, and a small quantity of wine, with some beef-tea, &c. On the following (that is, the third) day none of the local symptoms were relieved, and the constitutional symptoms were much aggravated; and in addition to that which had existed previously, there was a most intense pain, with swelling and tenderness in the right shoulder, (that is, the shoulder on the opposite side to that on which the artery had been tied.) I now left off all medicine, and prescribed half a pint of red wine to be taken daily, with such nutriment as the stomach would receive. The pain in the shoulder, with some degree of swelling, continued for a considerable time; but on the quantity of stimulus being further increased, this, as well as the other symptoms, gradually subsided, and the patient ultimately recovered. I am induced to mention to you briefly the principal circumstances of this case, because, as they were instructive to myself, so I hope that they may be not uninstructive to you. They show that a secondary inflammation, such as might be expected in the common course of things to proceed to a purulent deposit, may, in some instances, be made to terminate in resolution. They furnish also an example of a low inflammatory affection in a person accustomed to the use of spirits, being relieved not by bleeding, antimonials and purgatives, but by a directly opposite method of treatment; namely, the prudent exhibition of stimulants and nourishments: thus confirming the observations which I have already made on this important point in surgical practice.

Besides the various sources of danger after operations to which I have just called your attention, and which are all connected with inflammatory action, there are others not less important which are connected with derangement of the function of the nervous system.

As a wound made accidentally may be followed at the expiration of ten days or a fortnight by symptoms of tetanus, so that made by the hand of the surgeon may produce the same unfortunate result. You must not, however, (in this climate, at least,) allow the apprehension of this terrible disease to enter into your calculation. It is just as probable that it will occur after the most trifling operations, such as you perform daily, as after those which are most difficult and complicated; and the chance of this occurrence after either the one or the other is so very small, that for all practical purposes you may regard it as none at all. If you were to take account of such small chances as this, you would not take a journey on horseback for fear of being thrown off your horse and killed; nor

would you venture to travel in a mail-coach, or in a railroad-carriage. Besides, we have no such knowledge as will enable us to say in what particular case it is most probable that tetanus will occur, nor how it is to be avoided or prevented.

You have heard of, and most of you have witnessed a disturbed state of the nervous system which sometimes follows local injuries, and to which M. Dupuytren has given the name of traumatic delirium, though that of traumatic mania would be a more appropriate appellation. This disease may follow the injury done by an operation as well as that which arises from an accident. The case is always replete with danger, and not unfrequently, even in spite of the most judicious treatment, the termination of it is fatal. It is not my intention to occupy your time by giving an exact history of the symptoms and progress of the disease; these being, I doubt not, well described in the systematic course of lectures delivered in this theatre by Mr. Cæsar Hawkins. It is sufficient for my present purpose that I should observe that the symptoms vary somewhat in different cases, and that the degree of danger varies also.

Now, according to my observations, the cases in which this disturbed state of the nervous system follows accidental injuries and operations in the London hospitals, are chiefly those of individuals who had habitually indulged too much in the use of fermented and spirituous liquors, and especially of dram-drinkers; and in the majority of these cases, the symptoms immediately follow the sudden abstraction of the accustomed stimulus. A man who has been accustomed to drink his bottle of wine daily, with the addition, perhaps, of some porter at his dinner, or to swallow daily one or two pints of gin or brandy, should, after an operation, (unless there be some very potent reason against it,) be at once allowed a moderate proportion of his usual liquor, and, perhaps, a still larger quantity afterwards: or if attention has not been paid to this in the first instance, and the symptoms of traumatic mania have begun to show themselves, wine, or gin, or brandy, with the addition of the acetate or muriate of morphia, should be immediately exhibited with a view to arrest its progress. In some few cases of persons whose habits have predisposed them to this disease, there may perhaps be inflammatory symptoms of such a nature as to justify or demand the use of the lancet, and other methods of depletion, in the first instance. This treatment, however, will only make the patient more liable to traumatic mania afterwards, and his life will certainly be sacrificed unless you exercise a sound judgment in choosing the exact moment of time in which you shall alter your treatment, and substitute the cautious exhibition of stimuli and opiates for that which you had employed previously.

Nervous symptoms, which are essentially, though not in all minute particulars, of the same character as those which arise in persons who have been too much addicted to strong potations, may arise under other circumstances. In the museum of this hospital you will find the lower portion of a tibia divided longitudinally, and exhibiting the cavity of an abscess in the cancellous structure imme-

diately above the ankle. I shall give you briefly the history of this case, as it will serve to illustrate our present inquiry, and is of much interest. The patient was a young man about twenty-four years of age, and he consulted me rather more than eighteen years ago under the following circumstances. He had an enlargement of the lower extremity of the right tibia, with pain, which was constant and at all times severe; but he was subject to paroxysms, in which his sufferings were described as being most excruciating. These paroxysms recurred at irregular intervals, confining him to his room for many successive days, and being attended with considerable constitutional disturbance. He had consulted many surgeons, without deriving any advantage from their advice. The remedies which I prescribed were of no more avail than those which he had taken before; and when I proposed to him that he should lose his limb, he gladly consented to the operation. The preparation to which I have referred you sufficiently explains the nature of the disease; but the termination of the case is that which is most to our present purpose. The patient bore the operation with the utmost fortitude, so that a bystander could not have supposed that he suffered the smallest pain. Immediately afterwards, however, he became restless and irritable, and too much disposed to talk. Unfortunately, in the evening there was hæmorrhage from the stump, which ceased on the removal of the dressings and coagula, though not until a considerable quantity of blood had been lost. During the night he had no sleep, and on the following morning, he was restless and incessantly talking, with a rapid pulse. The symptoms became aggravated. There was no disposition to sleep, and the pulse became so rapid that it could be scarcely counted. Until the third or fourth day the tongue remained clean and moist; and afterwards it became dry and somewhat brown. There was constant delirium. The pupils were widely dilated; and the sensibility of the retina was so completely destroyed, that the glare of a candle was not perceptible, even when held close to the eye. Death took place on the fifth day after the operation. No morbid appearances were detected in the *post-mortem* examination.

There can be no doubt that the immediate cause of this patient's death was a disturbed state of the nervous system consequent on the shock of the operation, but probably aggravated by the secondary hæmorrhage afterwards; and it is reasonable to suppose that the state of constant misery and excitement in which he had lived for many years, and which, as I was informed, had rendered his temper unusually irritable and capricious, made him more liable to be thus affected than he would have been otherwise.

In other cases, a corresponding predisposition may be traced to an originally imperfect construction of the nervous system, showing itself, as the patient attains the age of puberty, in the form of aggravated hysteria; or perhaps, at a more advanced period of life, in that of mental derangement. I have seen several remarkable cases of severe nervous symptoms following even small operations in the former class of patients. The history of such cases would of itself

occupy a lecture, and it is sufficient for my present purpose that I should call your attention to them, and that I should state, as the result of my experience, that those who labour under disease of the nervous system are among the most unfavourable subjects for all kinds of operation. Even in the case of a young woman who is more than commonly hysterical, I advise you to proceed with caution. Her powers of life are weak; she will ill bear any considerable hæmorrhage; and she is more liable than others not only to a dangerous disturbance of the nervous system, but also to those low inflammatory affections consequent on operations, of which I have spoken formerly. I do not say that you are never to recommend an operation to persons of this description; but I am satisfied that you ought to have a very sufficient reason for doing so; and I advise you, if an operation be determined on, to make every possible provision against much loss of blood; and to endeavour to sustain the powers of the system by the careful administration of nourishment, and even of stimuli afterward.

I need scarcely tell you, that, as a general rule, the existence of organic disease in any organ that is concerned in the vital functions should be regarded as a great objection to a surgical operation. To perform the operation of lithotomy where the existence of a stone in the bladder is complicated with disease in the kidney, is almost a sure method of shortening the patient's life. To lay open a fistula of the rectum where there is also disease of the lungs, will probably cause the tubercles and vomicæ of the latter to become more rapidly developed. Nothing but the most pressing necessity can justify an operation under such circumstances. Still, such necessity may exist; and when it does exist, you are not to shrink from the responsibility of doing what is required. You may be called to a patient who has an aneurism in the popliteal artery and in the aorta at the same time. To tie the artery in the thigh, where such a complication exists, and where there is nothing in the state of the popliteal aneurism to cause immediate danger, would be madness; but to hesitate to do so, if it were on the point of bursting, would be cowardly and cruel.

Gentlemen, in thus describing to you the various sources of danger after surgical operations, my object has been not to diminish, but to increase your confidence in operative surgery. The surgeon who goes blindly on, not looking at the evils which may probably or possibly ensue, is a mischievous member of society; while he who proceeds with circumspection, and makes it his business to learn what those evils are, will know how to avoid them, and although he cannot always command success, still it will be only on some comparatively rare occasions that he will experience the bitter disappointment of finding that the efforts which he has made for his patient's good have turned out to his disadvantage.