CLINICAL LECTURES ON STRANGULATED HERNIA.

Delivered at St. Bartholomew's Hospital.

BY SIR JAMES PAGET, BART., V.P.R.S.,
Consulting Surgeon to the Hospital.

LECTURE IV.

THE former lectures have related to the diagnosis of strangulation of a hernia, and to the operation necessary for its relief. This last will be on the treatment of cases after operation. In looking over my cases of hernia for illustration of this matter of after-treatment, I was struck with the great difference between the practice of late years and that of thirty or more years ago. In reference to all the subjects of the preceding lectures—the discrimination of the cases needing operation, the modes of operating, and generally, the pathology of strangulated hernia—knowledge has, we may believe, increased, but without any material change of opinion; but, when we come to questions about treatment of patients after operation, we seem to know, and certainly we believe, things widely different from those which were generally believed when I was a student.

The present general rule of practice after operation, in cases likely to go on well, is to do what is called nothing; to wait till some reason for interference is manifest; and, while waiting, to take care that the patient shall have fit bedding, fit air, fit food, quietude, and good nursing. All these prime conditions of health are called “nothing.” The contrasted “something” would be bleeding, active purging, or other restless interference with the natural course of recovery, such as was in vogue in the earlier years of my case-taking, and such as had not quite ceased twenty-five years ago, when I became assistant-surgeon to the hospital. In this contrast you will see only an illustration of the great change of opinion respecting treatment which may be observed in a wide range of medical practice, as in cases of fever, acute rheumatism, pneumonia, and all acute inflammations—a change shown, not by substituting one remedy for another, but by letting many diseases and the effects of many injuries take their natural course, in the confidence that they will come to a natural good end, and that we have no medicines potent to alleviate or cure them. But let me say that, while I have no doubt that the present general plans of treatment are better than the past, I yet do not believe that the past plans were so mischievous as some have told of them. I have no recollection of serious harm being often done by bleeding in the many cases of illness, whether slight or severe, in which, during my apprenticeship, I practised it. In a few cases I think it was mischievous, but in the great majority it was harmless. In many, it gave such relief from pain or other distress as naturally strengthened the belief that it did real good; and in a few cases I do not doubt that it was beneficial. Still, in cases of strangulated hernia, whether before or after operation, I think you never need bleed a patient. I do not believe that bleeding ever saved the life of a hernia-patient, which but for the bleeding would have been lost.

And as for purgatives, though I believe they were often mischievous and more often unnecessary, yet I do not doubt that they were, and still may be sometimes, very useful; and I wish I could tell you more exactly than I can the class of cases in which they should be used. At present, I know only one—the class, namely, in which it is clear that the strangulation has occurred while the bowels are overfilled, and in which the strangulation is acute and quickly relieved.

Now for general rules of treatment after operations for strangulated hernia. Bear in mind the complicated cases with which you may have to deal. In each case there are, or may be, these constituents: the intestine damaged by displacement and by being forcibly replaced; the operation-wound; the effects of chloroform; the intestinal disorders which, at least in many cases, preceded the strangulation, and may continue after the operation; the effects of aperients and other medicines given for this previous disorder or for the strangulation; the inflammation or worse than inflammation of the sac and its contents, which does not subside immediately after even a successful operation.

When a case has been timely operated on, all these things may amount to nothing worse than may be left to the course of spontaneous recovery; and a case that goes on well requires that “nothing” in the

way of treatment of which I spoke just now. But, when anything goes amiss, you must have in mind all the things I have enumerated, in your endeavour to interpret the signs of wrong and to amend it. Very few cases are more difficult to manage than those which do not go on well after operations for hernia. There are terribly few which, having gone out of the right course of recovery, can be brought back to it.

What, now, are the signs of going on well? Chiefly a consciousness of complete relief; that is, not only of relief from the local distress, but from the general misery. Deceptive as sensations often are, this rarely is; and, if a patient be not conscious of relief, you must keep on the alert, and suspect that something is wrong. Besides, there should be no pain or acute fever. Mild traumatic fever there may be; but there should be no more; no nausea or sickness, but general quietude or sound sleep, a gradual recovery of appetite and strength, and, after a time, action of the bowels. I say after a time, wishing to be indefinite. Sometimes the bowels act very soon after the operation, and this may be harmless; but I think it is not good, for it indicates either the effect of physic wrongly given before the operation, or some irritation of the bowels which would be better at rest. They do best who, while relieved from their distress, have no action of the bowels for some days. I know no necessary limit to the quietude in which the bowels may be left. In one of my cases, they did not act for nine days after the operation; and I have heard of others where, without any disadvantage or discomfort, there was still longer inaction. But this is, I think, a good general rule—to leave the bowels at rest for four days after the operation; then, if all seem well (not otherwise), to order a simple enema; and, if this be not sufficient, some aperient. I know no advantage in leaving the bowels longer inactive than these four days; and I had one case in which great inconvenience, to say the least, was occasioned by a very large accumulation.

After the action of the bowels, if all still go on well, there is no need of considering anything but the patient's comfort and the local treatment, and the diet may be of the plainest kind. Excess is more likely to be mischievous than spareness.

Among cases that do not go on well, there is a great variety; but I shall speak of those alone in which the wrong is in something peculiar to hernia. Of course the wound of the operation may lead to any of the evils that may follow other wounds, as erysipelas, pyæmia, and the rest; but these I shall almost pass by.

Among my cases, I find some in which ill-looking symptoms, such as diarrhoea or colic, followed the operation, but meant no serious mischief, being only the continuation of the intestinal disturbance which preceded the strangulation. I have already spoken of this matter, but it is worth repeating: that it is common for the descent and strangulation of a hernia to be preceded by some intestinal disturbance, the signs of which may be suspended during the strangulation, and renewed after the operation. Whatever the disturbance, it may be treated, or left alone, as if no operation had been done; but it must not be forgotten in estimating the meaning of any symptom of ill-doing.

Of these symptoms, one of the chief is vomiting. If a patient vomit once or twice soon after an operation for hernia, it may only be because the stomach was filled with secretions before the operation, and now finally empties itself. In this is no harm—perhaps some good. But, if the vomiting continue, it may be a sign of the gravest import. It may, indeed, be due to chloroform. I have seen several instances of this, and among them one in which chloroform-sickness continued for three days after the operation, endangering the patient's life. Generally you may distinguish the vomiting due to chloroform from that due to peritonitis or unrelieved strangulation, by its being attended with horrible nausea, like sea-sickness; by its producing no fecal fluid or abundant gastric secretion, there being more retching than vomiting; and by the patient's feeling relieved of his hernia, however wretched he may feel with his nausea. If the pain and distress of the hernia be relieved by the operation, and, except for vomiting, all seem well, you may be nearly sure that the vomiting is due to chloroform, and commonly you must wait till it spontaneously subsides. I believe you cannot cure it, and food put into the stomach only aggravates it. The patient had better be without food, if in fair strength; but, if very feeble, he had better be maintained with enemata of milk, eggs, beef-tea, and wine.

If vomiting go on for six or more hours, or for days, after the operation, and be not due to chloroform, it is a very bad sign—I had nearly said a mortal one; for generally it tells that the operation has failed in its design. Either the strangulation is not reduced, or the intestine is paralysed above the strangulation, or there is peritonitis or sloughing or perforation of the intestine, or some such trouble. Very rarely the untoward conditions indicated by continuous vomiting are relieved spontaneously or with repeated doses of opium.

The persistence of abdominal distress, with tension and pain and colic, after the operation, is not so serious. If other symptoms be relieved, these probably will be; and they may generally be treated with large enemata or aperients, such as the sulphate and carbonate of magnesia. But there is no need of haste to give these things. The abdominal troubles which they are to relieve are not due to serious disease, but probably to intestinal accumulation, which began before the strangulation, which would be very slow to destroy life, and may be allowed to remain till it can be treated without risk. In such a case as this—a not very rare case—when all seems well except the abdominal pain and tension, be on the watch. If there be no change, do nothing. With time, the intestines will empty themselves. If there be increase of pain, without increase of pulse or breathing or other evidences of fever or inflammation, give enemata or aperients. I am sure you may manage cases of this kind better and more deliberately than I did some of those which I have recorded. I see now that I was over-busy with them, and was only very fortunate in that I did no harm.

A large group of cases, much worse than these, may be made of those in which the operation gives little or no relief: all goes on after it as all did before, or everything becomes worse. Few cases can be more grave than these. You may think yourselves happy if, from twenty such cases, you can save one.

The failure of relief from the operation may be due to the utter exhaustion of the patient. I have had to operate on patients already dying. I could not refuse to operate, for I could not be certain that it would be useless; but it proved useless, and seemed mischievous. The intestine was returned, and all put right; but the patient was too exhausted, as one may say, to be conscious of relief, and went on dying, although carefully fed and nursed.

Or the failure of relief may be because the strangulation remains—a constricting band or misplacement of the intestine, or some such thing, having been overlooked. In such a case, especially if you have not opened the sac, you must open the wound and the sac; enlarge the opening through the stricture; find, if you can, the strangulated intestine or whatever may be wrong, and, if possible, set it right. You may be so fortunate as to succeed—more fortunate than I have been. But then, in two of my cases, an internal and distant strangulation coincided with that of the hernia. This was irremediable—could not be reached; and the second operation was as useless as the first.

But by far the most frequent cases in which the operation gives no relief, or only some slight and very brief relief, from the signs of strangulation, are those in which the intestine does not recover itself. It remains nipped, powerless, congested or inflamed, spoiled, and incapable of contraction; while the part of the canal above it becomes distended, and after a time powerless, the abdomen becoming constantly more tense, though it may be with less turbulence of the intestines. This condition is most frequent in the old, and after long strangulation; it is commonly attended with peritonitis; and no doubt the inflamed state of the muscular tissue of the intestine, both in and above the strangulated part, is often the cause of the loss of muscular power, or a serious hindrance to its recovery. But peritonitis is not a necessary part of the calamity. I believe I have had cases in which no peritonitis existed beyond the strangulated part. In such cases as these, you may find the best hope, though the best is seldom good, in opium, food, and wine, all of which you must give by the rectum, if the stomach will not retain them. Your object must be simply to keep the patient alive while, in time, the intestinal canal, being at rest, may regain power. Very small quantities of food may suffice for this—a few spoonfuls by the mouth every hour or two; and, twice or three times a day, injections into the rectum of milk, beef-tea, egg, wine, and laudanum, mixed all together.

Very similar to these cases are those in which peritonitis, having begun before the operation, is not relieved by it. There is, plainly, no reason why the relief of strangulation should at once remedy the peritonitis which the strangulation produced; and it sometimes seems to continue quite unaffected. Indeed, you had better expect that this will be so, and follow what is a very good general rule—that, namely, of giving opium directly after the operation in all bad cases of strangulated hernia, unless there be some clear reason for not giving it. I have seen no harm come from this plan, and I think it has sometimes done real good. What are the bad cases I have already told you. In any or all of them, you may give a grain of opium, or an equivalent subcutaneous injection of morphia, directly after the operation; and then watch and determine whether to give more, or what else to do. Especially, you may expect to have to give wine very soon after the operation, for the patients are generally feeble.

Thus, then, you may have in mind four sets of cases in which the

operation for strangulated hernia, though, to all appearance, well done, does no good at all, or too little to be counted. It may be so in patients utterly exhausted; in cases of persistent strangulation at the hernia or elsewhere; of intestine rendered powerless; of continuous peritonitis. Of all these I have seen examples. There may be others which I have not seen or have overlooked. From all of these you may distinguish in thought, and generally in fact and practice, those sets of cases in which untoward events arise after a clear interval of relief from the operation. All may go on well, or at least not badly, for a time; the patient may have a clear sense of relief; and the sickness and other bad symptoms may cease for hours or some few days; and then come trouble and disappointment.

The cases that may be thus grouped are many and various. I find among my notes instances of acute inflammation of the hernial sac and its coverings; simple acute peritonitis, such as might be called traumatic; asthenic peritonitis, probably of erysipelatous nature; acute peritonitis, with rapid collapse, from intestinal perforation or rupture; simple inaction or paralysis of intestine. And to those which were peculiar to operations for hernia may be added other calamities, such as might occur after any operation, as diffuse cellulitis, erysipelas, phlebitis, and others.

It is not possible to speak of all these things now—hardly even appropriate; for, though those in the first list are associated with hernia, they are not peculiar to it, and their pathology and treatment must be studied on a broader field. The peritonitis must be dealt with according to the same rules as that which has nothing to do with hernia, using great care to determine which of the forms I have enumerated is in each case present. The strangulation may itself cause peritonitis; and this, as I have said, beginning before the operation, may continue after it. The wounding and exposure of the peritoneum may excite its inflammation, or greatly aggravate that which existed before the operation. In both these sets of cases, the signs of peritonitis will be observable directly after the operation, or, at the furthest, within twelve hours after it; and these will generally be cases of acute, or, so far as the constitution of the patient will allow, of asthenic inflammation. But you may generally distinguish from these the cases in which peritonitis sets in after a longer interval, and in which it is rather of an asthenic type, whether it come from giving way of the intestine, or from such conditions as would produce erysipelas after external injuries.

Do not suppose me to pretend that, in every case of peritonitis after hernia, you can easily determine to which of these different types of inflammation it belongs. You can determine often; you should try to do so always; for according to the type of inflammation must be your treatment. In the sthenic inflammations, you may give great comfort and help to recovery by free local bleeding with leeches, by large poultices over the abdomen, by weak saline and alkaline drinks, by the plainest and least stimulating diet. In the asthenic, opium is the only remedy that is generally useful. It used to be calomel and opium; but I believe the calomel did harm oftener than good. And with the opium must be rest and warmth, and liquid nutriment and diluted wine. And I can state no more general rules than these; for the rest of the treatment must be determined separately for each case.

Now, besides these very serious evils that may follow operations for hernia, some local troubles may ensue, of which a few are worth telling you of.

Perhaps the most common is acute inflammation of the hernial sac, alone or with the immediately adjacent part of the peritoneum. It is, I think, most likely to happen after operations for large herniæ in old people, when considerable force or time has been used in the reduction. You may know it best by the localised pain and tenderness with acute fever, without the signs of unrelief or of general peritonitis of which I lately spoke. There is no severe illness, but the general condition appropriate to a sharp local traumatic inflammation; and you may treat it, in this view, with complete rest and warm moist coverings of the part, and very little food; and in the acute cases in robust people, with copious leeching. In the acutest case which I have seen, I applied ninety-eight leeches in three days after the operation, with great comfort, and I think great advantage, to the patient. That was twenty years ago; but it would still be right to do the same.

Another local trouble is acute inflammation of the cellular tissue outside the sac. It is chiefly seen after operations for scrotal hernia and for deep-seated femoral herniæ. Commonly, the case appears going on well for a few days; and then comes a blaze of inflammation in and beneath the skin, leading sometimes to abscess, sometimes to diffuse suppuration. There is in these cases nothing peculiar to hernia. The same troubles may, as you know, follow any other operation; and they always need the same general means of treatment. I have never seen serious evil ensue in any case of the kind.

I might tell of other hindrances to recovery from the operation for hernia; but I limit myself to those of inflammation of the testicle, of sloughing of the scrotum, and others which I have been able to study practically, and I pass the others by, as I have done many other things, especially the complications of herniæ with various local diseases, such as hydrocele, varicocele, undescended testicle, and others. I have seen only one or two cases of each, and can tell nothing which is not already well told about them. Indeed, for a conclusion, I must say that, though to some of you it may have seemed excessive to give four lectures on strangulated hernia, I have treated the subject very superficially, very incompletely. One lifetime is not nearly enough for its complete personal study, in even so large a field as this hospital supplies.

ABSTRACT OF LECTURES

ON THE

SURGICAL TREATMENT OF ANEURISM IN ITS VARIOUS FORMS.

Delivered before the Royal College of Surgeons of England.

By T. HOLMES, F.R.C.S.,
Professor of Pathology and Surgery.

LECTURE III.—*June 7th, 1872.*

THE review of the table of cases in which the distal operation has been practised for thoracic aneurism was concluded. In seven cases, the left carotid has been tied for disease known to affect the arch of the aorta, and the operation has proved beneficial in all except one, in which the patient died from the direct effects of the ligature. One case was especially referred to, now under the care of Dr. Cockle, in which the carotid artery was tied by Mr. Heath in February last, and the patient was shown after the lecture to those present. The growth of the aneurism has been materially checked, and the patient is now in perfect health and able to walk fourteen miles without fatigue. The table of cases concluded with two of distal ligature of the third part of the subclavian for innominate aneurism, by Wardrop and Broca, in both of which also the operation was beneficial. The following conclusions appear to be those justified by present experience on the subject of Brasdor's operation on innominate aneurism. 1. The distal ligature of the carotid alone, or in conjunction with that of the third part of the subclavian, cannot be trusted to produce the complete consolidation of the tumour. 2. The natural effect of the ligature of the carotid artery is to produce coagulation in the part of the sac directly connected with the mouth of that artery. 3. This may suffice, practically, for the cure of the aneurism when the subclavian portion of the sac is small, and shows no disposition to grow. 4. In other cases where the mouth of the subclavian is previously obliterated by impacted clot, the ligature of the carotid alone may effect a radical cure. 5. For these reasons it is better, in any case which appears to require distal ligature, to commence with the operation on the carotid alone, and afterwards to consider the propriety of securing the subclavian in either its first or its third part.

The question of the justifiability of operating on the first part of the subclavian was then considered. The operation has always hitherto failed from secondary hæmorrhage, and the possibility of repeating it justifiably depends on the possibility of obliterating an artery without dividing it. A historical summary was given of the attempts made with this view by John Hunter, Cline, and others, in the early days of the ligature; by Sir Philip Crampton, Mr. Porter, and others, with the *presse-artère*, acupressure, etc., and with the silver ligature: and it was shown that, although occasionally successful, these methods had not hitherto proved trustworthy. The history of the catgut ligature was then traced from its introduction by Sir Astley Cooper. Porta's experiments and operations were referred to; and the experience lately acquired with the carbolised catgut ligature was related. A preparation was shown in which Mr. Holmes had tied the carotid and subclavian arteries in the human subject with this substance; the patient having died from another cause about nine weeks after operation. Both arteries were undivided; the subclavian permanently closed by organised tissue; the carotid obstructed by clot. The collateral circulation during life had hardly been developed to so great an extent as usual; the pulse being only very faintly perceptible in either the radial or the temporal, thus showing that the trunks were really obliterated. This case furnished anatomical demonstration of the possibility of tying arteries without subsequent ulceration, the material of the ligature being subsequently absorbed. The reason for the failure of catgut ligatures

in the hands of the older surgeons appears to be, that the wounds were not treated so as to produce rapid consolidation of their deep parts, and possibly the ligatures were not properly prepared. If subsequent experience prove it to be generally possible to secure this result of tying an artery, it might be justifiable to operate distally on the first part of the subclavian artery, though the chance of finding it diseased would render the operation very dangerous. Reference was made to the uncertainty of diagnosis between innominate and aortic aneurisms; and it was suggested that the indications for operation in cases of supposed innominate aneurism should be drawn from the progress of the case—that is, from the apparent extension of the sac up the course of the carotid artery and towards the trachea. With respect to ligature of the left carotid for aortic aneurism, it appears also to be beneficial in the same way—that is, by obliterating the carotid and the portion of the sac through which the stream passed into the carotid.

The next subject treated of was galvano-puncture, and it was shown that by the galvanic current clots of more or less solidity could be formed in an aneurismal sac. It was also shown, by reference to a case of subclavian aneurism under the care of M. Abeille, that these coagula may ultimately attain sufficient firmness to obliterate the aneurismal sac. At the same time it must be allowed that such coagula are frequently not stable, but soften and melt down again into the blood-stream, thus rendering the operation nugatory. Further experience is required on many of the most essential details of this method; and these ambiguities and uncertainties form a valid ground for rejecting the operation—at least for the present—in any case in which the artery is fairly accessible above the tumour.

ON SOME ABNORMAL CONDITIONS OF THE LIVER, ACCOMPANIED BY JAUNDICE.*

By EDWARD LONG FOX, M.D., Physician to the Bristol Royal Infirmary, Clifton.

THE cases referred to in this paper were not all due to one and the same condition of liver, but they were examples of peculiarities which are either unusual or obscure.

CASE I.—A man, aged 50, was a patient in the Bristol Royal Infirmary, under Dr. Brittan (by whose courtesy I am allowed to mention the case here). He had only been ill for seven weeks, with intense jaundice, and the troublesome itching consequent on the jaundice. He had had hæmorrhage from various surfaces, and had passed blood *per anum*. The liver during life was seen to be much enlarged, but was smooth. At the necropsy, the heart was found to be fatty. The lungs were healthy. There was a little recent inflammation of the lower portions of the right pleura. The liver was very large; the ducts were much dilated all through the organ. The gall-bladder was enormously large, full of black bile. The ductus choledochus was very large down to within half an inch of what should have been its entrance into the duodenum. Here it was entirely blocked, not with gall-stones, nor with any thickened secretion, but apparently as the result of inflammatory thickening. What should have been the duct was transformed into fibroid tissue, and could never have again become patent. The pressure of the occluded bile had very nearly produced an artificial opening into the duodenum lower down. The spleen was rather large. The mucous membrane of the small intestine through its whole extent was covered with blood. The kidneys were much tinged with biliary pigment.

CASE II.—A gentleman, aged 63, was first seen in May, 1870. He had been ailing for two months previously, and had complained of constant slight pain in the right hypochondrium. About five or six weeks previously he became suddenly jaundiced, and was very actively treated with calomel and podophyllin. In the first week of his illness, he once passed bile *per anum*, never since. He was always a spare man, but rapidly emaciated. He had lately been taking Turkish baths. Twenty years ago, he passed some gall-stones, but without pain and without jaundice. No tumour could be felt. There were some tension and tenderness over the head of the right rectus abdominis, especially on deep pressure. There were no ascites. He had intense jaundice. The bowels were confined. A little albumen was present in the urine. Sir William Jenner came down to see him, and gave as his opinion that the disease was probably a cancerous gland pressing upon the common duct, but that it was possible that the patient was suffering from a thickening, and a remediable thickening, of the duct itself. He suffered terribly from the icteric itching of the skin, and sank rather suddenly about a month after first coming under my observation. Death was preceded by twelve hours of coma. No *post mortem* examination was allowed.

* Read before the Bath and Bristol Branch.