Clinical Lecture

ON

STRANGULATED FEMORAL HERNIA.

DELIVERED AT ST. GEORGE'S HOSPITAL.

BY

PRESCOTT G. HEWETT, Esq.,

SURGEON TO THE HOSPITAL.

MARY A. C., aged 51, was admitted into the Princess Ward on December 4th, 1862, with a tumour, of the size of a small orange, in the right groin. It was of a globular shape, with a well marked, narrow pedicle, and for the main part overlapped the right abdominal ring; it was quite hard, very painful, even when slightly handled, and there was great tenderness over the whole of the lower part of the belly, as high up as the umbilicus; there was constant sickness, but the bowels had acted three times during the day; the pulse was small, and the countenance sunken and anxious. The history of the case was a somewhat peculiar one. It appeared that the patient had had a tumour in the groin for seven years; this tumour had apparently been taken for a cyst, for it had been punctured several times, and clear fluid drawn off: no suspicion had been entertained as to its being a rupture, and she had consequently never worn a truss. She was much in the same state as usual, when the tumour suddenly became larger and very painful, and the other symptoms soon followed, and had existed about nine hours when I saw her, shortly after her admission into the hospital. I determined upon operating at once, and she was put under the influence of chloroform. The sac was a remarkably thick one: it contained a quantity of blood-tinged fluid, and a knuckle of small intestine which was of a very dark colour, and somewhat rough on its surface; the stricture was very tight, and the ring a very small one. A grain of opium was given shortly after the operation.

The operation was followed by deep-seated inflammation around and within the sac; but with this exception the case did remarkably well. The bowels were left alone until the ninth day after the operation, when, as there was some slight griping pain, an injection was given, and this was repeated on the following day, as there had been no action of the bowels; a slight motion followed, and the day afterwards the bowels were freely relieved after another injection. From this time, matters went on well; liberal diet was allowed in due course of time, and the patient was discharged, cured, on the 3rd of January, within a month after the operation.

In commenting upon this case, I would first call your attention to its peculiar history. There had been a tumour in the groin for a period of seven years; this tumour had apparently been taken for a cyst, and at different periods tapped, clear fluid being drawn off on each occasion; there had been no suspicion as to the tumour being a hernia, and consequently no truss had been worn. Suddenly one morning, this tumour increases in size; this is followed by repeated vomiting, and the belly becomes swollen and painful, but subsequently to all this the bowels act three times.

On the one hand, then, there was the history of the tappings, and the action of the bowels at three different times, since the setting in of the urgent symptoms; and, on the other hand, sudden increase

in the size of the tumour, soon followed by constant vomiting, and subsequently by pain and distention of the belly. By what was I led to operate in this case? By the increase in the tumour, followed by constant vomiting. Such symptoms pointed to an obstruction in the bowels, a knuckle of which had, I thought, slipped out of the belly. True, the bowels had acted three times since then; but this night, I told you, have come from the portion of bowel below the stricture. Sickness, alone, is then sufficient to warrant the surgeon in cutting down upon a tumour in the groin to ascertain its nature. And well was it that there was no dallying in this case, for the ring was a very small one, and the stricture remarkably tight. With such a state of things, a few hours more of strangulation would, in all probability, have led to irreparable mischief; and, as it was, the bowel was already of a very dark colour, and rough on its surface.

Thus much for the present case. And now let me say a few words on different points connected with strangulated femoral hernia in general.

First, as to the administration of chloroform in such cases. By many surgeons who have no hesitation in resorting to the use of chloroform in various operations, this anæsthetic is avoided in strangulated hernia, on account of the sickness and depression which occasionally follow its administration. Such symptoms after an operation for hernia would add greatly to the gravity of the case, and might, if severe and prolonged, lead to a fatal issue. Indeed, independent of operations for hernia, several cases are already known in which chloroform-sickness has gone on notwithstanding all remedies, and induced such a state of collapse that the patient has been in great jeopardy. And if this sickness should, perchance, occur after an operation for hernia, doubtless the danger of a fatal termination would be all the greater. It must be borne in mind, however, that chloroform-sickness of a severe character is, after all, of very rare occurrence; and, as far as my own experience extends, I cannot say that I have ever seen a case in which severe sickness has followed the administration of chloroform in an operation for hernia. Balancing, then, this evil of rare occurrence against the immense use of which chloroform has proved itself to be in the reduction of a strangulated hernia, I have no hesitation in resorting to its administration in such cases.

As to the taxis, that you know was not even attempted in the case which we have just been considering. And why not? The globular and pedunculated shape of the tumour made me think that this was one of the cases of strangulated femoral hernia in which the taxis would fail; and added to this there was the exquisite tenderness of the tumour, which showed that great harm might be done even by gentle pressure. In strangulated femoral hernia, the surgeon cannot be too careful in his attempts at reduction by the taxis; and, do what he will, the taxis will fail in by far the greater number of such cases—in three out of four, at the very least. Let it then be a rule with you in all cases of strangulated femoral hernia, and mind I am now speaking of femoral hernia only, to be very careful, very gentle whenever you may use the taxis. If you are to succeed, depend upon it you will do so by gentle pressure, which ought not, moreover, to be prolonged beyond a few minutes; if you fail, get the

patient under the influence of chloroform, and then try the taxis again, but on no account with any thing like force; and if you still fail under such circumstances, make up your mind to operate, and operate at once. The chances of success after an operation for strangulated femoral hernia may, literally, be calculated by the more or less time during which strangulation has been allowed to exist, and by the more or less force used in the taxis. And yet, what is the history of most of the cases of strangulated femoral hernia with which we have to deal in hospital practice? Rarely is it that the period of strangulation can be counted by hours: it is by days that it must be counted in by far the greater number of cases. Take, for instance, the twenty-two cases of strangulated femoral hernia in which I have had to operate in this hospital: in fourteen out of these twenty-two cases, the strangulation had gone on for two days and upwards, existing in seven out of these fourteen cases for three days; in two, for four days; and in one, for five days. In one single instance, it had existed for five, and in another for seven hours; and in the remaining six, the least period was twelve hours. And whilst thus strangulated, the bowel had, with very rare exceptions, been subjected to the taxis, repeated at various intervals, and applied with more or less force. Indeed, in several of the cases, the force had been so great that the skin covering the tumour was of a dark purple colour, the cellular tissue extensively infiltrated with blood, the sac itself filled with bloody serum, and the bowel discoloured from blood extravasated in its coats.

The damage done to the bowel during its period of strangulation varies very much according to the size of the ring, and the consequent amount of pressure. Thus, in cases of recent hernia, cases in which the bowel is strangulated when it first comes down, the ring is very small and the pressure very severe; in such cases, a very few hours will often lead to irreparable mischief, and hence the reason why operations are, as a rule, so much more fatal in recent than in old femoral herniæ. The amount of pressure upon the bowel caused by the stricture is, then, the great source of danger in all cases, but especially in recent cases, of strangulated femoral hernia; and hence the reason why I have so strongly urged you, if the taxis fail, to operate at once.

Opening, or not opening the sac, about which there has been so much discussion of late, is, I am firmly convinced, quite a matter of secondary importance, compared with the period of strangulation, and the more or less forcible taxis.

For my own part, I invariably open the sac in operating for femoral hernia. I have never seen any harm arise from opening the sac; and great harm may arise, in some cases, from not opening the sac. For instance, in cases, and they are not uncommon ones, where the sac contains both bowel and omentum, and in which the omentum is more or less adherent to the sac, how can the surgeon be sure that a bit of the bowel is not left in the sac? Again, in cases where the omentum forms a complete sac enveloping the bowel, the stricture may be in the neck of the omental sac. Thus it happened in a case operated upon by Mr. Cæsar Hawkins. The sac, which was very thin, was laid open, and in it was found a large mass of omentum somewhat altered in structure. The neck of the sac and Gim-

bernat's ligament were divided, so that the finger could be easily introduced into the belly. The omentum was then carefully examined, and a knuckle of small intestine, of a very dark colour, was seen through its folds, which formed a complete sac; this omental sac was laid open; but, before the intestine could be returned, it was found necessary to divide the neck of this second sac, which formed a very tight stricture; the intestine was then easily reduced. And again, in recent hernia, where the thin, transparent sac has not as yet contracted adhesions with the neighbouring parts, and especially where it has become glued by recent adhesions to the bowel, the sac, if not opened, may be readily pushed up into the belly along with the bowel, and the strangulation thus continue. The possibility of such an occurrence was made manifest in one of my last operations, in which such a state of things existed; and had it so happened that I had not, in this case, opened the sac, it would have been pushed up into the belly when the bowel was reduced; and, as recent adhesions partially glued the bowel to the sac, and especially to its neck, the strangulation would have gone on.

I have said that I have never seen any harm arise from opening the sac in strangulated femoral hernia; but on the present occasion I shall, however, refer only to the cases which have fallen under my own care. Incidentally, I have already mentioned that I have at this hospital operated upon twenty-two cases of strangulated femoral hernia; and out of these twenty-two cases, four only terminated fatally. And now, in looking to the cause of death in these four cases, I find that in no single instance had the opening of the sac anything to do with the fatal issue. Indeed, as far as this part of the inquiry is concerned, one of these fatal cases might be set aside altogether; for death was, in this instance, mainly caused by internal hæmorrhage, of the existence of which there was nothing to cause suspicion. There was no bleeding at the time of the operation, and subsequently no oozing of blood through the wound. The bowel, which had been strangulated for four days, was very much congested, and the sac also contained a small piece of omentum. Previously to the operation, there was great tenderness over the belly; this tenderness went on increasing, and the patient sank in forty-eight hours. At the examination of the body, a quantity of blood was found in the cavity of the peritoneum; it coated the various viscera, but the largest quantity had trickled down into the pelvis. A careful dissection of the vessels around the ring was made, but no injury was traced in any one of them, save in a very small vessel given off from a branch of the epigastric artery, and from this the hæmorrhage appeared to have proceeded. As to the parts which had been strangulated, they were evidently recovering themselves.

But to return to the three remaining fatal cases; in every one of these cases death was evidently the result of the strangulation, and in no way of the sac having been opened.

In the first case, the hernia was an old one, and the period of strangulation three days. When admitted into the hospital, the patient, a man aged 63, was perfectly collapsed, and in such a state of debility that it was thought doubtful whether he could live through the operation. The sac was opened, and the bowel returned, as, although dark,

it did not appear to be gangrenous; but, a few hours after the operation, a copious discharge of thin faecal fluid escaped from the wound. The patient sank rapidly. At the after-death examination, the mucous membrane of the bowel was found completely ulcerated in a circle corresponding to the seat of stricture, and in two points the other coats had given way.

In the second case, the hernia was a recent one, and the period of strangulation two days; and in this case, too, two spots of ulceration perforating the bowel were found at the point which had been strangulated. The patient was a woman, aged 76.

In the third case, the hernia was also a recent one, and the period of strangulation four days. The patient, a young woman, was in a perfect state of collapse, with stercoraceous vomiting, and great tenderness over the belly, which was tympanitic. Forcible taxis and purgatives had been repeatedly tried before her admission into the hospital. The sac contained a quantity of bloody fluid, and the bowel was of a very dark colour, and mottled. The patient never rallied, and sank in twelve hours after the operation. Extensive peritonitis of a low form was found at the examination after death.

Excluding, then, the case in which death was evidently caused by internal hæmorrhage, I find that I have, in this hospital, operated upon twenty-one cases of strangulated femoral hernia, in all of which the sac was opened; and that out of these twenty-one cases, three have died—that is, at the rate of one case in seven.

Such results will more than bear comparison with the most favourable results published by the surgeons who so strongly advocate that the sac should not be opened in strangulated femoral hernia. True, the number of cases is small; and in a greater number of cases, I might perchance not be so fortunate as I have been; but that the sac should have been opened in these eighteen cases, and that they should all, notwithstanding this, have done well, proves, at any rate, that the real danger does not rest with this mode of operating.

In the after-treatment, shortly after the operation, I usually give some opium, the dose of which is regulated by the state of the patient; but, as a rule, I do not give more than one grain, and this is repeated, or not, according to circumstances. The bowels I make a point of not interfering with. You will have seen in the wards of this hospital many of the cases of hernia on which I have operated, in which there has been no action of the bowels for several days—a week I find to be a very common period among my cases, and yet the cases, as you know, have done well. This is a very different state of things from what it used to be some few years ago at this hospital, when a drachm of salts and some infusion of roses immediately after the operation, and every two hours, until the bowels had acted freely, was the rule.

But should any symptom attributable to the non-action of the bowels perchance arise after a few days, it is then advisable to give either an enema of warm water, or some castor oil, according to circumstances.

As to diet, that ought, as a rule, to be of a generous kind: fluid, until after the bowels have been freely open, and then a gradual return to the ordinary mode of living.

But I cannot conclude these few remarks, gentlemen, without once more impressing upon your minds the imperative necessity of operating without delay in strangulated femoral hernia, as often as you find that the taxis, fairly tried, has failed. Recollect that the great source of danger is in the strangulation, and that the less this is allowed to go on, the greater your chances of succeeding when obliged to operate. And this is a fact which you ought to be careful to stamp upon the memory of every person afflicted with femoral hernia.

Clinical Lectures

DELIVERED AT

CHARING CROSS HOSPITAL.

BY

HYDE SALTER, M.D., F.R.S.,

FELLOW OF THE ROYAL COLLEGE OF PHYSICIANS; LECTURER ON PHYSIOLOGY AND PATHOLOGY AT CHARING CROSS HOSPITAL MEDICAL SCHOOL; AND ASSISTANT-PHYSICIAN TO THE HOSPITAL.

LECTURE V.—ON THE STETHOSCOPE.

Principal Uses of the Stethoscope.—Rules for its Construction: 1, as to Material; 2, Length, Thickness, etc.; 3, Shape, etc., of Extremities—Practical Hints for its Manipulation—Method of Applying—Choice of Whereabouts to apply—Determining Limits of Sound—Auscultating Females and Children.

[Concluded from page 108.]

HAVING thus described to you what I consider the essentials of a good stethoscope, let me give you some practical hints for its manipulation.

1. *Method of applying and holding the instrument.* Choose your part—apex or base of heart, apex of lung, axilla, or what not—and if you are not particular to a quarter of an inch, select it with the view of avoiding inequalities, and securing the most complete and uninterrupted apposition. Then apply the stethoscope thus (fig. 5), holding it between your

Fig. 5.

first and middle finger of either hand, according to the ear you are going to listen with; then press it firmly, applying your pressure to the spreading part of the chest-end. In this way, all chance of obliquity and partial contact is avoided, and the direction of the parietes alone influences the direction of the instrument. Then, keeping the chest-end gently but firmly pressed against the chest, bring the ear carefully and exactly over the centre of the ear-piece; then, applying sufficient pressure to secure the firm contact of the pinna, so as to stop all