CLINICAL LECTURES ON STRANGULATED HERNIA.

Delivered at St. Bartholomew's Hospital.

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LECTURE II.

In the last lecture, I tried to show how the signs of a hernia supposed to be strangulated may be used for guidance in determining whether its reduction must be achieved by operation, or whether any simpler means for reduction may be used. In this lecture, I will speak of the trials at reduction that may be made, or may not be made, before operating.

For a general rule, let me repeat, your first examination of a patient with a hernia supposed to be strangulated should not be with a design to reduce it at once, but rather with a design to make-out what shall be done; what are the chances of reduction without operation; what helps shall be used to obtain it, if it be deemed desirable. Of course you may reduce the hernia, if reduction at once be easy; but do not go on trying if it be difficult. If the case be a bad one, you must first decide whether reduction without operation should be even attempted; and, if the attempt is to be made, what and how much it should be. For this decision, here are some general rules, which I find illustrated by my cases.

In very bad cases—as, for instance, when the patient vomits fecal matter and has peritonitis, or is in collapse, with a small rapid pulse, hiccough, or other such extreme signs—there should be no attempt at reduction without operation. The risk of the operation is trivial in comparison with that of returning sloughing or ulcerating intestine into the abdominal cavity.

When the coverings of the hernia are so inflamed as to make it probable that sloughing or suppuration has taken place beneath them, reduction should not be attempted without operation; and, even when they are less inflamed, none but very brief and very gentle efforts should be made, for success is improbable, and failure may be mischievous.

The longer the signs of strangulation have existed, the shorter should be the efforts at reduction; and the more acute the signs are or have been, the more gentle should these efforts be. Only, here, do not reckon among the acute signs the intensity of pain in recent or greatly enlarged herniæ; for many of the most intensely painful herniæ are reducible with the help of chloroform, though they may need as much force as in any case justifiable.

The longer and the more numerous and forcible the efforts at reduction made, in any case, before it comes under your care, the briefer and gentler should your own efforts be; if, indeed, you do not at once decide that enough has been done, and that there remains no fair chance of reduction without operation.

If you find that you have to do with a hernia which has been habitually irreducible, and in which you have reason to believe that, without any addition to them, the contents of the sac have become strangulated, you had better operate at once. You are not likely to reduce a protrusion which even before strangulation was irreducible.

Let me now suppose that, observing these rules, a first examination of a strangulated hernia leads to the decision that its reduction without operation is to be attempted: I cannot give a single rule of practice that shall always suffice for the next step after such a decision; but, speaking generally, and of a great majority of cases which come under treatment, it is a safe rule of practice that, after a very warm bath and a few hours' rest in bed—say from three to twelve hours, according to the case—a single attempt at reduction, of reasonable force and length, should be made; that, if this should fail, chloroform or ether should be given; that then, in some cases, but not in all, a second attempt should be made; and that, if this should fail, or if it should not be made, the operation should be performed while the patient is still insensible.

The hot bath should be used in all cases that are not very bad, unless in old and feeble persons, whom it might depress too much. Among these, its place may be supplied by very hot fomentations, or by warm poultices over the hernia and the parts near it; and these must be used as the next best things when a hot bath cannot be had. Helped by rest, all these things are certainly very useful, whether by

relieving the tendency to irritable muscular action, or by relieving congestion, or by whatever other means. Especially you may see their utility in hospital patients, who are commonly brought in wretched, chilled, and restless, with their herniæ tense and full and very painful, and their abdominal muscles starting into resistance at the least painful pressure. The heat of the bath, and bed, and recumbent rest, may remedy all this; and the hernia may become easily reducible, or may even reduce itself. It is commonly advised to have the bath so hot, and to keep the patient so long in it, that he may be very faint; and during this faintness to attempt the reduction while the patient is still in the bath. I more than doubt the prudence of this advice. It seems to me better to let the patient be simply soothed and relaxed in the bath, then to put him into bed wrapped in warm blankets, lying on his side, on his back with his knees drawn up, or with his pelvis a little raised, and then, after an hour or two of complete rest, to attempt the reduction. The advantage of this plan is shown in the many cases in which the surgeon gets the credit for reducing a hernia which the house-surgeon has failed to reduce. The house-surgeon tries in the bath, and fails; the surgeon, an hour or two later, succeeds, not, or at least not always, by greater skill, but by reason of the more favourable condition of the patient after a time of rest and warmth, and of his better position—lying flat instead of half-sitting as in the bath. This employment of rest and the bath may be helped by opium whenever the hernia is very painful, and the patient too restless to have a chance of natural sleep. A grain of opium may procure the rest necessary for the quietude of the parts, but is less likely to be useful with femoral than with umbilical herniæ, and less likely with these than with inguinal.

In the old, and in others who may have had inactive bowels long before the strangulation, and in whom fecal accumulations or abundant air may be in the large intestine, an enema even of a large quantity of liquid should be used; for the emptying of the large intestine may greatly facilitate the return of the hernia. Purgatives, I believe, had better not be thought of, if there be any marked signs of strangulation. There are no clear indications for determining the cases in which they might possibly be useful; and, if they do no good, they may do grievous harm. I do not doubt that some have gained advantage from purgatives; but in my notes and memory I rather find instances of mischief, and certainly no cases in which there seemed reason to think that the patients were the worse for not taking any sort of purgatives after evidence of strangulation.

After the warm bath and rest—and still speaking of only the majority of cases, for in some there is no time for these things—you may give chloroform or some other anæsthetic, and try to reduce the hernia. How you are to do this, I cannot tell you now; nor what time and force are reasonable to be used. You must imitate what you see done by men of repute, and use the best common sense you can. I can tell you some things that you must not do. You must not go to work as if you were resolved to reduce the hernia *per fas aut nefas*; you are not to spend an hour or even half an hour about it, or use all your force, or take off your coat and turn up your shirt-sleeves, or kneel on the bed, that you may press with the more weight; you are not to let half a dozen persons try their hands in turn. You are not to do these or the like things, all of which I have known as the sources of dire calamities. You are to be gentle and self-restraining, mindful of the delicacy of some of the structures you are handling, and that you may do them much more harm than would come of the operation which you are trying to avert. These cautions are the more necessary because, when the patient is under chloroform, you have nothing but your own sense and senses to tell you how far you may go without doing harm. The great value of chloroform and ether is that, by abolishing sensation, they put an end to the muscular resistance to reduction which, whether he will or no, the patient makes when hurt by the pressure of his hernia. Hence they are most useful in the herniæ of which the difficulty of reduction is chiefly due to muscular resistance; in the recent, or in the recently much enlarged; in the inguinal more than in the femoral, and in these more than in the umbilical; in the painful more than in the painless. Chloroform and ether are by so much the most potent helps to the reduction of herniæ, that it may seem as if it would be right to use one of them without waiting for the influence of a warm bath, or recumbency, or any similar means. Sometimes it is right thus to do, especially in herniæ that have only very recently come down and are intensely painful. But more commonly, if there would be danger in waiting for three or four hours, it is because strangulation is so far advanced that the operation ought to be done at once, without any previous attempts at reduction. If there be no such extreme urgency for immediate reduction, there can be nothing but advantage in the use of the bath and the three or four hours' rest in bed; for they may make the hernia reducible, or, even if they fail of this,

they may cause changes in it which are beneficial for both the performance of the operation and for the probabilities of recovery after it.

I have been speaking lately of the plans for average or medium cases; and before, of the cases in which no attempt at reduction without operation should be made. You may ask, Are there any cases in which it is justifiable to wait longer after the warm bath, and rest, and chloroform, and a fair attempt at reduction, have been tried and have failed? I will not venture to say that such a case for waiting cannot happen; but I am clear that your rule, with barely an exception, must be that, when you are satisfied that a hernia is strangulated, and you have failed to reduce it with such helps as I have indicated, you should operate. While the patient is still under chloroform, the operation should be done; and you should prepare for it before giving chloroform. Of course, if you are satisfied that the hernia, though irreducible, is not strangulated, you may wait; but in this case you must watch almost impatiently, for an intestine or omentum that cannot be reduced is very likely soon to become strangulated, and so is one that is inflamed or blocked up in a hernial sac. Still, if no signs of strangulation, especially if no vomiting, should supervene, you may wait from day to day; but if the signs do occur, especially if there arise vomiting, or increase of pain, or increasing rapidity of pulse and breathing, then you must operate at once, and you had better not try again at reduction. The trial is much more likely to do harm than to do good: you had better operate at once. Nothing does more harm to a strangulated or nearly strangulated hernia than the force of an unsuccessful attempt at reduction.

While you are waiting, you may use, in different cases, ice or warm dressings, enemata, aperients, or opiates. I cannot tell you the indications for each of them. I am glad to have had no sufficient experience of waiting to have weighed the several values of these things; glad, because I have no doubt that, for every case in which an operation has been avoided by waiting, there have been two cases in which lives have been lost by waiting too long. But there are at least one or two conditions favourable for all cases in which you desire to wait; namely, rest in bed and very sparing food. Nothing should be allowed to disturb the patient's rest, and no handling of the hernia should be permitted. Part of the value of ice and poultices and other like applications is this, that they all keep hands off.

Of other supposed helps I will not speak—of tobacco, and curious postures, and shakings with the legs up and the head down, and cupping-glasses, and other like and unlike things. They are ingenious wrong-doings, more dangerous than the operation which they are intended to avert.

In speaking of herniæ as being reducible, I have had in mind only such as can be completely and certainly reduced. But it is not uncommon to meet with cases of strangulated hernia, in which the reduction is doubtful or partial. As I looked through my cases, I found many of these recorded, in which there was delay in sending patients to the hospital, because surgeons believed that part of the hernia was put back, and hoped that the rest would soon go; and some in which, even in the hospital, there was mischievous delay through the same fallacious hope. It is not easy to say what takes place in these partial or doubtful reductions. Some patients will tell you that the whole never did go back, and that what now seemed to be reduced might only be an additional protrusion. Sometimes, I think, air is pushed back from the intestine, or fluid from the sac; sometimes omentum is put back; sometimes, perhaps, part of the intestine; sometimes nothing—the whole notion of reduction being fallacious. The liability to deception is greater than you would imagine. You may feel a thrill of receding fluid, or a gurgling of air, which you may suppose to be what some describe as the characteristic gurgling (as if anything of the kind were infallibly characteristic), or something slipping back; but all may be fallacious. There is one practical rule for all these cases. If the symptoms of strangulation be not relieved by the supposed reduction; if the vomiting continue, or the pain, or the patient's sense of distress, or any other of the distinctive symptoms—then, without delay, you must operate. A partial reduction of a strangulated hernia, if it be not followed by a complete relief of symptoms, is in nothing better than no reduction.

I may add, that most doubtful reductions are not reductions; and of the partial reductions, none are safe except some of those in which intestine is put back and only omentum remains in the sac.

Be prepared also for cases in which reduction is, or seems, complete, and yet the signs of strangulation are not relieved. In these, a hernia may be returned *en masse*, or pushed into another sac, or between the peritoneum and fascia; or the case may be one of hernia complicated with an internal strangulation, or one of many other conditions so hard to discriminate and deal with, that I can give only one general rule for their management—viz., that if you can feel a lump at

or near the hernial ring, as if there were something which may be a strangulated hernia, then you must operate.

To end what I should say respecting the propriety of operating, I ought perhaps to speak of the condition of the patient as affecting the risk of the operation by reason of age and general health and various complications. Among my cases, I find not only many of the fattest and feeblest, but examples of complication with phthisis, acute and chronic bronchitis, aortic constriction, phlebitis, gastric ulcer, diseased bladder, intestinal disorders of various kinds, and internal strangulation. Patients such as these were one would not wound for any trivial good; but, with a strangulated hernia, the peril of doing the operation can hardly ever be so great as the peril of leaving it undone. Old age and feebleness, fatness, intemperance, or unsoundness of whatever kind, may add to the risks of this, as of any other operation; but all these risks must be accepted. A patient must not be allowed to die with a strangulated hernia, if by any means whatever the strangulation can be relieved; and you must not be averted from the operation by any consideration of the number of deaths that follow it. The deaths after the operation may be 50 per cent.; but the deaths due to the operation are not more than 2 or 3 per cent., and even these would probably have been deaths from the hernia if the operation had not been performed. The great proportion of deaths is made up of those in whom the strangulation has done mischief which the operation cannot remedy. It is not unfair to maintain that, speaking generally, the deaths after operations for hernia are only to be counted as failures to save life, while the recoveries are to be counted as lives saved from certainly impending death.

CROONIAN LECTURES ON DISEASE AND ITS MEDICAL TREATMENT.

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LECTURE II.—*Concluded.*

WITH reference also to *Morbid Conditions, due to the Retention within the System of Matters, originating in the Waste of Tissues*, and destined normally to be removed by the various excretory organs, the principles of treatment may be simple, but the means of carrying them out are by no means equally simple. The point of fundamental importance is, to endeavour to restore to a healthy condition the emunctory to whose failure the particular retention happens to be due. But this is often impossible; and the organ may remain permanently inoperative, or so much impaired as to be totally unequal under any circumstances to the full performance of its duties. In the case of the liver, this is, perhaps, less important than in that of the kidney, partly because the bile is less strictly an excretory fluid than the urine; partly because, being mainly, if not entirely manufactured by the liver, it is formed in less quantity by the diseased than by the healthy organ; and partly because the kidneys, to a considerable extent, act vicariously, discharging with the urine not only much bile-pigment, but other also of the constituents of the bile. The flow of urine should hence obviously be encouraged. The retention of urea is a much more important matter; for not only is it being constantly formed in the body, but no other organ can take on, in any adequate degree, the function of separating it from the blood, and consequently it tends to accumulate within the system. Some small quantity may pass off by the skin; but usually uræmic patients sweat little, if at all; some small quantity may pass off by the bowels, but certainly not much, and it may be added, that diarrhoea is not at all a necessary accompaniment of uræmia. A good deal no doubt passes into the connective tissue and accumulates there, the capillary system throughout the body acting as a kind of general excretory organ; and hence results general dropsy; and hence also, it is probable, that the smaller arteries are everywhere stimulated, as Dr. Johnson has demonstrated, into protective contraction. How far it may be desirable in these cases to promote the flow of urine, and what measures should be selected for the purpose, must of course depend very much on the nature of the renal disease which is present. But it must not be forgotten that urea is itself a valuable diuretic, and that undue stimulation of a diseased kidney by drugs is at best a questionable procedure. The only other secretions which can be promoted with advantage are those of the bowels and the skin. Profuse perspiration by means of