CLINICAL LECTURES ON STRANGULATED HERNIA.

Delivered at St. Bartholomew's Hospital.

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LECTURE I.

I PROPOSE to give you some lectures on Strangulated Hernia, a subject of great interest in practice, and one which you should do your best to learn while here; for it is only in a large hospital that you can see many cases of hernia, and only by the study of many cases that you can prepare yourselves for the great variety with which you may have to deal.

While I was on active duty at the hospital, I operated (in the hospital and in private practice together) on about a hundred cases of strangulated hernia, and I kept full notes of nearly all these as well as of some in which my colleagues operated. It is from these notes, and from the memoranda of several clinical lectures, that I shall draw materials for my present scheme.

It may seem to you that a hundred cases of strangulated hernia should be sufficient for some statistical deductions; but they are not nearly enough. The varieties of hernia, their complications, and the different conditions of people in whom they occur, make so great a variety of cases, that it would need a tabulation of at least a thousand cases to obtain conclusions of real value. I shall, therefore, use my notes and recollections only to enable me to tell you what appear to be truths on some of the most important practical parts of the subject.

Our first subject may be the grounds for determining whether a strangulated hernia, or one supposed to be so, is to be submitted to operation. Speaking generally, one may say that when in a case of hernia signs of strangulation are present, and reduction by the ordinary means cannot be accomplished, the operation for reduction should be at once performed. But then, what are the sufficient signs of strangulation, and what are the ordinary, or, better, the reasonable means for reduction without operation?

In all well-marked average cases, that is, in such as are neither slight nor very severe, neither (as some divide them) acute nor chronic, these following may be regarded as the signs of strangulation justifying operation. The hernia, usually reducible, or now first formed, cannot be reduced by reasonable means. If not recently formed, it is larger than usual, tense, firm, or even hard; without impulse, without resonance, painful, and tender on pressure, especially at its mouth and neck. The bowels do not act, though they may often be felt contracting, and may cause much colic and spasmodic pain, especially at the navel and the pit of the stomach. With this pain there is commonly some tenderness, with a feeling of tightness in the abdomen, especially about the navel and between it and the seat of the hernia. The patient is often sick, vomiting nearly all the food and drink that he swallows, and besides, a quantity of gastric and biliary secretion, or of the contents of the small intestines more or less diluted. The pulse and respiration are usually quickened and rather feeble; the patient feels and looks restless, low, and miserable—or, as it is called, "anxious". He cannot sleep or eat; and the hands and feet are apt to become cold and shrunken and dusky.

Whenever all these things are observed, and when they remain after such reasonable attempts at reduction without operation as I will presently speak of, you may hold that the operation should be done without delay. Much more, if possible, should it be done if these things be all worse than I have described. When the integuments over the hernia are inflamed, thick, sodden, and ruddy, or emphysematous; when the whole abdomen is swollen, tense, and tender; when the vomit is just like the liquid feces of the ileum; the pulse very rapid, feeble, and small; the skin cold and dusky and clammy; when the patient is dim in sense and mind, or in an anguish of misery with retching and hiccough; when all or the greater part of these elements of what the old writers called a *miserere* are combined; then, without trying any other method of reduction, you must instantly operate, though you may have only the slenderest hope of doing good, and a serious fear of seeming to do harm.

Thus far, one may speak very positively. In the cases which I have

sketched, there are the sufficient signs of strangulation; and if the hernia cannot be safely reduced without operation, the operation must be done. But you will not see many cases without seeing some in which, although the hernia may be irreducible, yet the signs of strangulation are very slight, obscure, incomplete, or in some other way not sufficient to make it nearly certain that the operation is necessary. It is an easy rule for all these cases that, whenever you suspect that hernia is strangulated, you should operate. If you will follow this easy rule, you will do some very bad surgery; you will kill a few patients whose lives you ought to save; and you will make many ill for two or more weeks who might be well in as many days or hours. You must avoid the easy rule, and learn the hard one of discriminating the cases that require operation. You must learn to discriminate those on which the operation must be done at once, without any previous attempts at reduction, and those in which before operation one or more attempts at reduction should be made with chloroform or other helps. For the purpose of such discrimination, let it be your design, in each case of strangulated hernia, not to choose any measure for its reduction till you have fairly weighed the signs of strangulation of which I have spoken. For convenience of thinking, you may divide them into the local symptoms, including all the characters of the hernia itself, and the less or more remote or general symptoms, especially the inactive bowels, the state of the abdomen, the vomiting, the pulse and respiration, and the general condition. I will try to tell how each of these, in its several degrees, may be estimated.

1. First, of the local symptoms, the irreducibility of the hernia, its unusual size, its tension or hardness, and the others which I enumerated, a few rules may include all that I can tell of these. It will be convenient to speak of irreducibility last; for, though it may seem as if it should be the condition decisive for operation, it is really a fallacious sign of strangulation; and, in some instances, no trial should be made to test its existence. As for the other local symptoms, their presence, in even a marked degree, is not decisive of strangulation, and is not sufficient to prove the need of operating when the remoter signs are not present. For the local symptoms may be found when a hernia, or its sac, is acutely inflamed, though not strangulated. In this state, which may follow injury, or even arise spontaneously, a hernia may become quickly larger than ever, firm and very tense, without impulse, very painful and tender, hot and red, and not at once reducible by any fair means. The sac may suppurate, the integuments may slough; and yet there may be no strangulation and no need of an operation. I have, indeed, only once seen this sloughing of the integuments over a hernia; but the case is not likely to be without parallel, and was a glaring instance of the fallacy of the local signs of strangulation.

A very stout elderly lady had a large umbilical hernia, which became painful, tender, and irreducible; her bowels did not act, and she felt sick, but did not vomit. There appeared no urgent need for operation, and she was one in whom an operation was not to be undertaken lightly. But, after three days' watching, during which the local, but not the remoter, signs had somewhat increased in severity, I found that a large portion of the thin integuments covering the hernia had rapidly sloughed. I operated at once, though with little hope of doing good; for I supposed that the contents of the sac must also have at least partially perished. But they were not even severely strangulated; the mouth of the sac was too small for their return, but they were not tightly girt, and the intestine was only moderately congested. The sloughing of the integuments seemed due to inflammation in a very feeble person, and an ill-nourished part; and with the same feebleness the patient died on the day after the operation.

You may find, then, and not rarely, that the local characters usually present in a strangulated hernia may be imitated in an inflamed hernia which is not strangulated. And, though very rarely, many of the remoter signs—the constipation and the vomiting, the quickened pulse and breathing, and the rest—may exist when a hernia is inflamed, but not strangulated. How, then, can you discriminate? Generally thus: in the inflamed hernia, without strangulation, the local signs precede, and greatly predominate over, the remoter and general signs; while, in a hernia which is inflamed after becoming strangulated, the remoter and general signs will still predominate over the local, and the history will tell that they preceded.

These means of discrimination, however, will not always suffice. You will meet with cases in which you will be uncertain whether the hernia be only inflamed and irreducible, or strangulated and inflamed; but in these cases you must not be uncertain of your practice. If you cannot very easily reduce the hernia, you must operate. The risk of operating on a hernia which is inflamed and not easily reducible is very small, in comparison with the risk of leaving one which is inflamed and strangulated; and even if you can find reasons for waiting, it must be with the most constant oversight, for an inflamed and irreducible hernia may

at any time become strangulated, and will certainly do so if not relieved by rest and other appropriate treatment.

For a second rule: if the remoter signs of strangulation be present, the local signs are urgent for speedy operation in the same degree in which they are marked, or in even a greater degree; for severe strangulation is often associated with slight local symptoms.

But, to judge rightly from the local symptoms, each may need to be carefully weighed as evidence for the necessity of operating, or of adopting other methods of reduction.

In reference, then, to the chances of reducing a hernia without operation, it is a bad omen when one has quickly come down much larger than ever before. A great majority of patients give this as the beginning of their troubles. Sometimes they tell that, while making a great effort, they felt the descent come larger than ever; that they felt some pain or more than usual increase in the hernia, and could not reduce it in the customary way. More often the larger descent has happened without apparent cause. While the patient was sitting, or in bed, or quietly walking, the descent has occurred; but, perhaps, most frequently it has seemed connected with some diarrhoea, or colic, or spasmodic pain, or with some kind of turbulent movement of the intestines, for some hours, or a day or two, before the descent. In some cases, moreover, the unusual size of the hernia is attained at once; in others by gradual increase. In some it very quickly becomes painful; and these are rather less likely to be reduced than those in which pain follows more slowly.

I cannot give you any satisfactory explanation of these unusual descents of herniæ or of their becoming strangulated; but let them teach you not to be deceived by any notion, that some unusual or startling event is necessary as a cause for the strangulation of an old hernia. And I believe it may be held as a safe rule in practice, that the more a recently descended hernia exceeds its usual size, the less is the probability of its being reduced without operation; and I think that the probability becomes the less, the more the size of the hernia continues slowly to increase; for not a few of those that have suddenly become very large, and then have not increased, may be reduced without operation, if the patient be put under chloroform soon after the descent.

Similarly, when general signs of strangulation exist, the harder and more tense a hernia is, the less is the chance of reduction without operation. The hardness may be due to any one of several conditions; but, to whatever it may be due, it is an untoward sign. It is especially so, if the hernia be a small one. In large herniæ, the hardness may chiefly be felt at and near the neck and mouth of the sac, especially in inguinal herniæ; and you must take care not to be deceived by a sac which is soft and flaccid everywhere except at its mouth; for there may be strangulated intestine in the mouth of the sac, though the rest contain only soft omentum or fluid not sufficient to distend it. Nay, you must not let even a wholly soft condition of the hernia, or an open external ring, weigh down against the well-marked general signs of strangulation; for the piece of intestine at the mouth of the sac may be too small to give a sensation of hardness, or the whole hernia may be omental.

Again, if the general signs of strangulation exist, the more painful and tender a hernia is, the less, speaking generally, is the chance of reduction without operation. But here it is to be observed, that this rule holds less for recent than for old herniæ. A recent hernia may be horribly painful, apparently because of the tension of the stretched fibrous tissues about the sac's mouth. Yet such an one may commonly be reduced with the help of chloroform; but an equally painful old hernia, or one that has slowly become thus painful, may require speedy operation. And the operation must be all the more certainly done when, together with any of the remoter signs, there are other local signs, such as inflammation of the coverings of the sac, suppuration, emphysema, or the like. These are imperative for operation, without any previous attempt at reduction.

And for another rule: if the remote signs of strangulation be well marked, and the hernia cannot be otherwise reduced, you must operate, though there may be no marked local sign at all. Or, even beyond this, if the general signs of a strangulated hernia be present—the constipation, vomiting, and others—and there be anywhere a swelling which may be a hernia, though it seem not likely to be a strangulated hernia, the operation must be performed at the seat of that swelling.

Reasons enough for this rule may be found in the many cases in which the local signs of a strangulated hernia are so little marked that the patient, having his attention spent on the misery of his vomiting and epigastric pain, and other symptoms remote from the hernia, says nothing of the hernia itself. In not a few of my recorded cases, the hernia had been overlooked for a day or more; and the patient had been treated for spasms, colic, dyspepsia, or some other imitated disease, while the hernia was obscurely becoming hopelessly strangulated.

This last rule, of operating though there be no local signs of strangulation, may lead you into trouble; into the trouble and discredit of performing an useless operation, and seeming to do much more harm than good. But this you must face; it is just in instances such as this that surgery must incur the risk of seeming to do harm rather than miss the opportunity of doing good. I have operated thus uselessly in three cases. One was an irreducible umbilical hernia, in which there was no strangulation; but vomiting and other signs of strangulation, caused by (I believe) gall-stones. Another was a simple femoral hernia, with an internal strangulation of a piece of intestine far away from it. The third was an inguinal hernia with the same complication. All the patients died, and my operations seemed worse than useless failures. But you must face this risk of seeming wrong.

You may have to go further than in these cases; and if, for instance, a patient have two herniæ that are irreducible, and signs of strangulation, and you cannot tell which is strangulated, you must operate on both. I saw Mr. Stanley do this; and no one could blame him, though, when death followed, it was found due to an internal strangulation distinct from both the herniæ.

These are the chief rules, so far as I have been able to learn, according to which you may use the local symptoms of a supposed strangulated hernia as a part of the evidence for determining for or against an operation for reduction. And to these it may be briefly added that the local symptoms are generally less severe in the old than in the young; in old hernia than in new; in omental hernia than in intestinal.

[To be concluded.]

THE RELATION OF ACUTE RHEUMATISM TO DELIRIUM TREMENS.

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THE subject of this communication was a publican, aged 35, who had been for several years addicted to immoderate indulgence in beer, gin, whisky, and brandy, and whose father (himself an abstemious man) was dying from chronic Bright's disease. He first came under my care for a severe attack of acute articular rheumatism, affecting the feet, ankles, and knees; the hands, wrists, and elbows, were exquisitely painful, much swollen, and red. On recovering from this illness, he returned to his old habit of excessive drinking; and, after suffering for some months from its milder but still distressing consequences, he came again under my care for a second attack of the same kind; and later on, for a third and a fourth attack. On each of these occasions he had violent and obstinate vomiting of bile, with a yellow tint of the skin and conjunctivæ. The urine was scanty and high-coloured, but always clear, and always free from albumen. During his convalescence, he rapidly improved under the use of nitro-hydrochloric acid, combined with either iron, strychnine, or quinine.

Some months afterwards, I was again requested to see him, and found him suffering, not in the least degree from his usual attack of acute rheumatism, but from the most violent delirium tremens. Every means employed failed to procure sleep or allay the severity of the symptoms, and his condition at length became alarming. Recollecting that his habits of intemperance had always been followed by articular rheumatism, I thought it probable that his only chance of relief depended on the reappearance of his usual attack. I immediately ordered the application of mustard-plasters to his ankles, knees, and elbows. On the following morning, the toes of the right foot were found to be swollen and red. Then the knee of the same side and the elbow of the opposite side assumed a similar appearance, with marked alleviation of the cerebral symptoms. Soon after the patient fell asleep, and when he awoke there was scarcely a trace of delirium. He went through the ordinary course of his rheumatic attack, and recovered in a few weeks.

I do not pretend to maintain that on this occasion the rheumatic affection of the joints was induced through the efficacy of the mustard-plasters, for the sequence may have been merely accidental; but what I wish particularly to record is the interesting pathological and important practical fact, that a severe and alarming attack of true delirium tremens, which had resisted every means employed for its relief, subsided rapidly and completely on the appearance of articular rheumatism. Nevertheless, it is well to bear in mind that the secondary affection of the joints may have been due to the action of the mustard applications.

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