A Clinical Lecture
ON
A CASE OF STRANGULATED FEMORAL HERNIA.

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THE case to which I wish to direct your attention this afternoon is that of a patient who was admitted into Bird Ward on March 8th with intestinal obstruction. A message was sent to me in the operating theatre that she was in a serious condition, and that faecal vomiting had been going on for several hours. Accordingly as quickly as possible I went to investigate the case, and decided to lose no time in operating on a femoral hernia which I found she had on the right side, and which I thought was very likely the cause of her trouble. There were several unusual points about the case, and I am therefore bringing it before your notice in a more formal way than I could do at my ordinary ward visit.

History.—The patient was too ill to give a very definite account of herself, but with the aid of her daughter who accompanied her to the hospital we elicited the following history: She appears to have been a very healthy woman, never having been laid up, except with an attack of rheumatic fever thirty years ago, from which she recovered perfectly. She had had a right femoral hernia for many years, for which she wore a truss, and this she continued to wear. When I called attention to the hernia she insisted that it had nothing to do with her present trouble, because she had no pain in it and it was always in its present condition. The present trouble began five days before admission (March 3rd), when the patient was seized with pain in the abdomen just after eating some beefsteak. This pain was accompanied by sickness, and several attempts to relieve the bowels were unsuccessful. She sent for a doctor, who, she states, ordered no medicine, but told her to put turpentine and hot fomentations on her abdomen, which she did, and, getting relief from the pain, she did not stay in bed, though the vomiting and constipation continued. The next day she had one evacuation of the bowels, but otherwise remained in much the same condition. She continued to persevere with her household work though in pain and discomfort until March 7th, that is, for four days after she was first taken ill. She then felt so bad that she took to her bed and sent for the doctor again, who, she states, ordered her some medicine and to continue the turpentine fomentations, which she did till the soreness of her blistered abdomen made her leave them off. The doctor on visiting her the next morning found increased distension and faecal vomiting, and advised her to go to a hospital, so she came here in the course of the afternoon, walking into the ward. Before she could be got into bed she vomited a good deal of faeculent material.

Condition on Admission.—A spare, delicate-looking person, and very dirty. All over the abdomen is a large blister, which she states was caused by the vigorous application of turpentine on hot flannels. The abdomen is very tense, and tympanitic all over, and patient complains of pain in the epigastric and hypogastric regions. There is a right femoral hernia which is neither tense nor painful but decidedly tender on manipulation. A rectal examination revealed nothing.

Now, with this history and condition before us what were we to do? Here was a patient who had intestinal obstruction five days, immense distension, and faecal vomiting, but the surface of her abdomen was in such a state of rawness and dirt, and altogether she was so dirty, that an aseptic laparotomy seemed impossible until some time had been allowed to elapse to purify her; but why should not the hernia be the cause of the trouble? It might be, though I must confess I had my doubts about it, as it presented none of the ordinary local symptoms of strangulation. But the skin was healthy in that neighbourhood, and it was quite possible to get that part aseptic quickly, so I decided to explore it, and, as the sequel proved, here really was the cause of all the trouble. True we did not save the patient's life but we relieved her urgent symptoms, and she was saved a good deal of suffering.

Before I go into the details of the operation let me tell you what passed through my mind while I was examining the patient. Here was a bad case of intestinal obstruction, not very acute, but it could not be called chronic, as the patient had been quite well up to six days before admission. Was the hernia (which one could not help seeing when the abdomen was uncovered) strangulated and was this the sole cause of the obstruction? We remember that the local symptoms of strangulated hernia are a tender, painful, hard, tense, irreducible swelling with no impulse on coughing or straining; there was not one of these signs present except irreducibility, and you recollect the patient walked into the ward, which you hardly expect a patient with strangulated hernia to do. The general symptoms are the same as intestinal obstruction from other causes. What are these, and is there anything in this case that would lead us to diagnose any other cause? They are intussusception, internal strangulation by a band or by a twist of the gut, volvulus and impaction of a foreign body. Intussusception rarely occurs in patients of the age of this individual; the symptoms were not severe enough for acute, and chronic would have had a longer history; the abdomen was too tense to expect to feel an intussusception. Internal strangulation by a band was unlikely, as the patient had never had peritonitis or indeed any abdominal disease to produce it, and at her age one would hardly think it was a congenital band; it might have been a twist, and that I thought not unlikely. Volvulus—that is, twisting of the mesentery so as to produce obstruction to the calibre of the bowel—was a possibility, but the history was too short; and for much the same reason obstruction by a foreign body was unlikely, and, moreover, there was no history of her having swallowed anything hard and indigestible; and there was no reason to think the patient had gall stones, the other foreign body most likely to get impacted and cause obstruction, so that the diagnosis really in my mind was between the hernia and a twist.

Had the abdomen and the patient been in such a condition that I could have safely operated in the middle line, I think I should have done so, and dealt with the hernia from within if it proved to be the cause of the trouble, but that was out of the question, and one knows that in an old femoral omental hernia, which this was, it is not uncommon for a little bit of bowel to come down and get strangulated, though in most cases there is some local sign of it.

Having determined on exploring the hernia it was desirable that no time should be lost, accordingly the patient was taken into the theatre and anaesthetised with gas and ether. The details of the operation are as follows: An incision was made over the hernia towards its inner side, the sac was exposed and freely opened, when about an ounce of slightly blood-stained fluid escaped, a mass of omentum somewhere about the size of an orange was then seen and found to be adherent at the femoral ring, but free elsewhere; this was gently raised, and behind it was seen a piece of gut which was deeply congested, but not gangrenous, and tightly nipped at the femoral ring. The constriction was divided with a hernia knife in the usual way, and the piece of bowel was easily returned to the abdomen. The adherent omentum was then carefully separated, transfixed, tied in two pieces with a silk ligature, and removed. The sac, which was very thin and tore easily, was tied at the femoral ring, but the lower part was left where it was. The wound was closed with interrupted silk sutures, dressed with cyanide gauze, and the patient put back to bed. To comment on the steps one by one—First: The escape of slightly blood-stained fluid—this indicated congestion and nothing more; next we observed a lump of omentum which was free at the bottom of the sac, but adherent at the neck; it was a good deal altered in appearance from normal omentum, but only in the condition this tissue gets into when it has been in its abnormal position a long time; it was obviously not the cause of the trouble, but on lifting it up there was a claret-coloured lump in appearance not unlike a large black Hamburg grape protruding from the femoral ring and nipped by it; this, I had no doubt, was the cause of the obstruction. Taxis had no effect, as one would expect, so I divided the constriction with a hernia knife and the little piece of gut slipped back easily.

May I say a few words on how to safely do this part of the operation? First, a director should be got under the band, and the best director is the finger-nail, then, it is wise to use a knife which has had the very sharp edge taken off; I think it is about the only condition under which a surgeon likes to use a blunt knife. You naturally make your nick away from any known vessel; here you would not cut outwards, as if you did you would probably damage the femoral vein, nor directly upwards lest you wound the spermatic cord or epigastric artery and get trouble with bleeding; but inwards, and if, as sometimes happens, there is an abnormal vessel in the way which a sharp edge would wound, a blunt edge would divide the resisting band and probably push the vessel away, that is why I used a blunt knife.

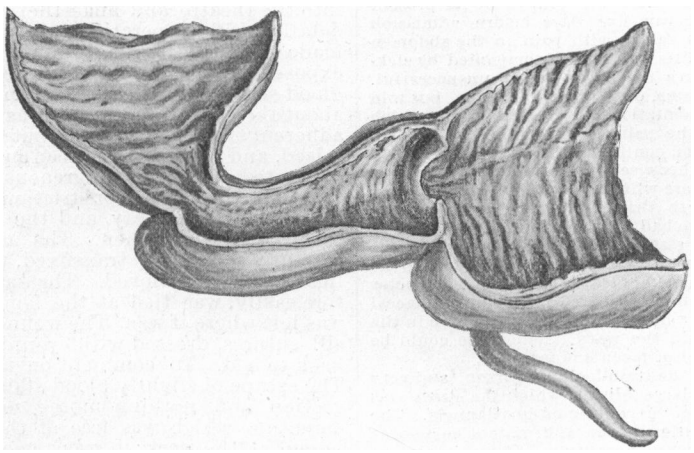
The question as to whether one should return the herniated bowel did not arise in this case; it was obviously in a condition in which recovery could take place when the constriction was removed. Now we come to the omentum. What was to be done with that? I examined it carefully, and found that it was only adherent in the outer part of its circumference and that it did not contain any gut, so I decided to remove it, and I did so by first separating the adhesions and tying

several vessels that bled; then I transfixed the main piece and tied it securely in two halves, the stump was then allowed to fall back into the abdomen and the neck of the sac ligatured. I made no attempt to close the ring, in a femoral hernia I do not think this is much use, neither did I dissect out the sac, which I found very adherent, and when it is securely cut off from the peritoneal cavity it rarely gives trouble.

We now come to the subsequent life-history, and unfortunately it was very short. The operation had evidently relieved the mechanical obstruction for the vomiting had quite ceased, but the abdominal distension did not go down and the bowels did not act. When I saw the patient twenty hours after the operation I learned that she had had a fair night and was more comfortable, and I suggested a turpentine enema to try to get the bowels to act; this however had no effect. The same evening, about thirty hours after the operation, her pulse began to fail, and notwithstanding the administration of stimulants she never rallied and died about 10 o'clock the next morning, forty-two hours after the operation. The only points here I need remark on are the continuance of the distension and the non-action of the bowels. Was this due to another constriction or to reduction *en masse*? Seeing that the vomiting had ceased I did not think it was either, but probably due to paralysis of the gut which might have been caused by the long constriction, and not improbably by the administering of opium, though we did not know for certain that that drug had been given, and it was acting on this belief that I ordered a turpentine enema. I may add as to reduction *en masse* that it rarely if ever occurs now, as it is an invariable custom to open the sac freely and explore the adjacent parts, and moreover it is very rare in femoral hernia.

A *post-mortem* examination was made the same afternoon, and I will read an extract from the notes:

On opening the abdomen the large intestine was found to be collapsed and empty (see Fig.), the small intestine considerably distended, its walls injected, especially along the lines of contact, and in places it was deeply discoloured, and this was most marked near the ileo-caecal valve. There was no exudate on the peritoneum, but its surface was slightly lacking in lustre. The appendix was healthy; the last 3 in. of the ileum were much discoloured and showed evidence of recent constriction, the peritoneum being discoloured and in one spot slightly abraded. The lumen of the gut was narrow, but not obstructed, the obstruction having apparently been relieved at the operation. The mucous membrane of this part of the gut was much discoloured and slightly rough from superficial ulceration, but there was no actual gangrene. The ileo-caecal valve was patent; the ileum in several places was deeply discoloured, and there was considerable submucous haemorrhage in these regions, but no ulceration. The neck of the hernial sac was found to be closed and the stump of the omentum was natural with the ligatures upon it.



Portion of Intestine (half natural size).

I need not read the rest of the *post-mortem* notes, as they are not material to our purpose to-day; it is sufficient to mention that with the exception of the liver and kidneys, which were fatty, the organs were normal.

The first thing we note here is the collapsed condition of the large intestine; then we notice that the herniated part of the gut was the very end of the ileum, almost implicating the ileo-caecal valve (see fig.). I have never seen this part of the bowel in a hernia, and am not able to find it recorded, the most usual part of the tube to find is the ileum higher up; but the colon, the caecum, the sigmoid, and the stomach have been found in a hernial sac, as well as most of the abdominal and pelvic organs, excluding, I believe, the pancreas and kidneys only. We next observe that the peritoneal covering was deeply discoloured in places, especially near the ileo-caecal valve; this was easily accounted for at the herniated part, as the constriction produced congestion, from which the gut had not recovered during the short time the patient lived, but as taxis had not been employed and there was nothing to account for the rest of the discoloration, I imagine it to be *post mortem*. The fact of the surface being slightly lacking in lustre, and injected at the lines of contact looks as if peritonitis, the old bugbear of abdominal operations, but which we rarely meet with now, was beginning. It is not many years since it was the rule in operating for hernia never to open the sac if it could be avoided for fear of this complication; indeed, this was the practice within my recollection. In a clinical lecture given in University College Hospital by Mr. Quain in my early days as a student, speaking of the way of dealing with the omentum in a hernia after the gut had been returned he says: "The bowel being restored to the abdomen by division of structures covering the sac, but without opening the sac itself, it would not be justifiable to proceed further, not justifiable to open the sac in order to act more immediately upon the omentum with the view of replacing it in the abdomen, as well as the bowel which had been already replaced." Such was the fear in those days of cutting the peritoneum, but if the peritoneum had to be opened then the omentum was treated exactly as we treat it now, though the surgeon is enjoined to make as small an opening as possible. The next point to comment on is "the lumen of the gut was narrow, but not obstructed," and I think this is well shown in the figure below. Whether the lumen was completely obliterated before the operation I cannot say; it suggests the possibility of a so-called Richter's hernia—that is, the inclusion in the constricted part of only a portion of the circumference of the bowel, this condition is not often met with, but is said to be more common in old and in femoral hernia than any other variety. You observe the one constriction close to the ileo-caecal valve and the other a little higher up, and a well-marked pouch between the two; you also notice the marked distension of the ileum above, which is nearly as large as the caecum. This, you remember before laying the intestine open, we saw to be quite collapsed. All actual nipping was removed, and there is no pathological cause to show why there was no action of the bowels after the operation. The superficial ulceration and discoloration of the mucous membrane and the submucous haemorrhage were probably due to the irritation of purgatives given with a view to relieve the obstruction in its early days. Enteritis is a condition that sometimes follows the operation for strangulated hernia, and when it occurs is a serious and troublesome complication.

I cannot conclude this lecture without impressing on you the importance of searching for a hernia in all cases of intestinal obstruction, and if you find one to explore it before resorting to other treatment or to the more serious operation of examining the intestines for an internal cause, even though, as in the case under consideration, there was no definite evidence from the local signs in the hernia that it was the cause of the trouble, and further, that whenever you do operate on a strangulated hernia, take care to explore the adjacent parts thoroughly, so that in the event of the continuance of any of the symptoms you know it cannot be due to reduction *en masse*, and remember that there are cases in which the symptoms may continue for a limited period, and that time and suitable drugs will effect a cure.

MEDICINE AND MATRIMONY.—It is stated that the New York State Legislature will shortly have submitted to it a Bill providing that all persons applying for a marriage licence must, as a necessary preliminary, obtain a medical certificate. The Bill is intended "to place greater restrictions upon the marriage of imbecile and half-witted persons, and also to prevent those having consumption and other diseases from marrying." A Bill having a similar object has recently been introduced in the Ohio Legislature. It provides that no person who is an imbecile, a lunatic, a drunkard, or a sufferer from the effects of narcotic drugs, shall be allowed to marry.