REMARKS
ON
OMENTAL HERNIA,
WITH CASES.

By JOHN MACFARLANE, M.D.

MEMBER OF THE FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW, SENIOR
SURGEON TO THE GLASGOW ROYAL INFIRMARY, AND SENIOR
DISTRICT SURGEON TO THE CITY POOR.

COMMUNICATED BY

ALEX. COPLAND HUTCHISON, F.R.S. L. AND E.
VICE-PRESIDENT OF THIS SOCIETY.

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THE omentum has been found to enter into the formation of nearly all the varieties of hernia, but from its attachments, and position, it is less frequently met with in those which pass out through the inferior apertures of the abdomen or pelvis. It escapes more readily through the umbilicus, through those preternatural ventral openings which are sometimes found in the anterior parietes of the abdomen, and through the inguinal ring and crural arch. It is more frequently encountered in umbilical than in inguinal, and in inguinal than in crural hernia: indeed in the latter situation its occurrence is comparatively rare.

As it naturally descends lower in the left than

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in the right side of the abdomen, it, of course, escapes more readily through the left inguinal opening than through the right. This fact however appears to be much exaggerated by Arnaud, when he asserts, that of twenty omental inguinal herniæ, nineteen will be found in the left side. Were I inclined to hazard an opinion on this point, I would state, as the result of my own experience, and of the published cases of this disease which I have read, that in about three-fourths of the cases, the epiplocele will be found in the left groin. There are, besides, a few rare cases, in which the omentum has escaped on both sides in the same patient, and in the same side it has been found to protrude through both inguinal and crural openings, so as to form two distinct tumours.

This disease is much more frequent in its occurrence in advanced than in early life. In children, the omentum is so short and imperfectly developed, as rarely to reach to the umbilicus; while in adults, and particularly in old people, it not only covers the bowels, but also, sometimes, extends a considerable way into the pelvis. I have, however, met with three cases of congenital rupture in very young children, in one of which the tumour appeared to be composed wholly, and in the other two partly, of omentum.

The first, which was an inguinal hernia of the

left side, was easily reducible, and had all the characters of being omental. The others contained both intestine and omentum, were observed at birth, and projected through the umbilicus into the sheath of the cord. The application of a ligature close to the umbilicus of the child, after the contents of the tumour had been carefully returned into the abdomen, was successfully adopted in one of the cases ; but in the other, the pain became so acute, that the ligature had to be removed in two hours. On the separation of the funis, a considerable deficiency of the abdominal integuments was discovered, and the tumour appeared to be covered, only, by the hernial sac, the external surface of which was ulcerated. During a severe fit of crying the sac burst, and permitted the escape of a small portion of omentum, and a fold of intestine. These were easily returned into the abdomen, and after several weeks, closure of the umbilical aperture, and ultimately cicatrization of the integuments were effected.

The external characters of an omental rupture, and the symptoms by which it is accompanied, are in many respects essentially different from those which distinguish an intestinal protrusion. The omentum being less sensible than the intestines, is said, when inflamed, or strangulated, to be seldom attended by the same urgent and alarming symptoms, as in the other form of the disease.

It cannot be denied that, an enterocele is more hazardous to the patient than an omental rupture; nor will this seem wonderful when we consider, the great difference in the structure and functions of these parts, and how essential to the support of life are, the free and uninterrupted movements of the alimentary canal. Nevertheless, I am induced to assert, from the cases which have come under my own observation, that in strangulated epiplocele, the symptoms both local and general, are often extremely severe; and that we shall fail in our duty, in many instances, if we do not adopt a more prompt and active treatment, than what seems to be followed, by some of the chief surgical authorities of the present day.

Garengéot alludes to a case which occurred to M. Chevalier, surgeon in Paris, in which, from the external characters of the tumour, and the severity of the accompanying symptoms, the intestine was supposed to be strangulated. When the operation was performed, the omentum only was found in the sac*. Pott, who with the exception of Mr. Lawrence, has written more fully and correctly on omental rupture than any other author with whose works I am acquainted, has also detailed several cases of a similar kind†.

* *Traité des Operations de Chirurgie*, Tome I., p. 256. Paris, 1731.

† *Chirurgical Observations*, Vol. V. London, 1775.

It is seldom that an omental attains the magnitude of an intestinal rupture; because in the latter species of the disease, the enlargement of the tumour, in general, depends on the repeated escape of new portions of bowel, while in the former, the progressive augmentation of volume occasionally observable, is more frequently to be attributed to the morbid enlargement of the displaced part. When the tumour is composed wholly of omentum it usually presents an unequal surface, has a soft doughy feel, and when long protruded, or irreducible, a slightly pyriform shape. It is more elongated, and less flattened or rounded in form, than an enterocele of the same size, and it also wants the tension and elasticity by which the other is distinguished.

When the tumour is small, recent, and unchanged in structure, it is often ill defined; and when in this state, it occupies the situation of the inguinal opening, it is apt to be mistaken for a partial enlargement of the spermatic cord; and even in an old irreducible epiplocele, the tumour sometimes presents externally, a smooth and polished surface, with the tension, and other characters of an intestinal rupture. This is especially observable when the sac is distended with fluid; but even when this complication exists, we shall seldom fail, unless the tension be very great, in recognizing the hard and irregular omentum

through the interposed fluid. The same uniformly smooth surface is occasionally met with, when the omentum contained in the sac is not consolidated, or otherwise morbidly changed, but is simply enlarged, from hypertrophy, or obesity. Here, however, the absence of tension and elasticity, and the peculiar flabby state of the tumour, will render the diagnosis comparatively easy.

The omentum, particularly when loaded with fat, escapes from the abdomen more readily than the intestines, is reduced with greater difficulty, and requires a stronger spring truss to prevent its reprotrusion. The marked difference which attends the reduction of an intestinal and an omental rupture, is also very characteristic of the two diseases. In the latter species, the tumour passes up very slowly, and without noise; and the pressure requires to be continued until it has entirely disappeared; being the reverse of what takes place in an intestinal hernia.

In employing the taxis in the reduction of an epiplocele, as great caution is requisite, in avoiding unnecessary violence or force, as when the tumour contains intestine. Although the omentum is neither so sensible, nor so important as the intestines, and is not so dangerous when injured, still its soft and loose texture renders it not so capable of resisting the application of force as a

healthy piece of bowel, and liable, therefore, when too much handled, to be contused and lacerated. I have seen one case, in which, from continued and powerful efforts at reduction, the omentum was lacerated in several places, and in another, the protruded part was livid and ecchymosed, from the extravasation of blood into its cellular texture. The contused omentum instead of being excised, was, unfortunately, returned into the abdomen, became gangrenous, and produced death.

On the sudden protrusion of a portion of omentum, especially when it occurs for the first time, we may expect to find the accompanying symptoms extremely urgent. Strangulation may be immediately produced, violent pain in the tumour and abdomen excited, with vomiting, hiccup, and obstinate constipation. In some cases an operation is indispensable, whilst in others, the distressing symptoms gradually yield, so soon as free alvine evacuations are procured.

E. G. * a healthy, unmarried woman, about 26 years of age, was suddenly seized, about three o'clock in the afternoon, when lifting a heavy piece

* I have mislaid my notes of this case, nor have I been able to obtain the Infirmary Journal in which it is recorded, but the leading facts are fresh in my memory, (although the case occurred in 1817,) and the above statement may be depended upon as correct.

of coal, with most acute pain in the right groin and belly. When I saw her about six, the pain had extended considerably, she had vomited once or twice, and the pulse was accelerated. There existed a small defined tumour, in the site of the right crural opening, which was about the size of a walnut, rather smooth and painful, but with hardly any tension. The abdomen was not tumid, but she could scarcely tolerate pressure in the vicinity of the tumour.

She was admitted into the Royal Infirmary about nine o'clock of the same evening. A consultation was called at ten, and with one exception, all the gentlemen present considered the tumour to be a hernia, and recommended blood-letting, the warm bath, and the taxis, which were immediately had recourse to.

About twelve, as the symptoms were unrelieved, it was agreed that the operation should be forthwith performed. As, however, the gentleman who believed that the tumour was not a hernia, maintained his opinion with a good deal of determination and asperity, the operation was postponed, until the opinion of one of the senior surgeons of the Infirmary, who was absent, could be obtained. Before this was accomplished, it was found, that in consequence of a dose of oleum ricini which the patient had taken before admission, one or two

copious evacuations were procured, on the surface of which oil was observed floating. The vomiting and pain of belly gradually subsided, but the tumour continued tender, undiminished, and irreducible. Leeches, cold applications, &c. were employed, and the pain of the tumour by degrees mitigated, but from this time she ceased to enjoy good health, was frequently attacked by dragging pains in the abdomen, vomiting, colic, and constipation. When I saw her last in 1824, she attributed all her sufferings to the tumour, which was then the size of a pigeon's egg, had an irregular doughy feel, and was immoveably fixed in the situation of the crural opening.

From the history of this case, and the state of the patient and tumour subsequent to the first attack of strangulation, I am convinced, that the disease was omental hernia. At first, the severity of the symptoms led to the belief that intestine was included; the free evacuation of the bowels, however, put an end to this opinion.

As acute pain was readily excited in the tumour by pressure, or by slight external violence, she was unable to bear the application of a bandage. By maintaining firm and steady pressure, by means of a truss with a hollow pad, we sometimes succeed, in preventing the further escape of omentum, in promoting the absorption or otherwise

favouring the return of the displaced portion, in guarding it from external injury, and in hindering the descent of the bowel. This practice can only be had recourse to, however, when the irreducible epiplocele is of small size, and even then, we shall often find symptoms of such severity supervene on its employment, that it cannot be persisted in. I have seen several instances, where mechanical ingenuity has been exhausted in the construction and alteration of bandages and trusses, to obviate the painful effects of sustained pressure on omental herniæ, but where it had to be discontinued, from the local and constitutional disturbance which it excited.

The reduction of an epiplocele may be prevented by a variety of causes.

1st. By adhesion of the omentum to the inner surface of the body, or neck of the sac. This occurrence, although often met with, is not so very frequent as some surgeons would have us to believe. When it does happen, however, the adhesions are generally very intimate and extensive, and prove an insuperable barrier to reduction. Sometimes, the adhesions exist in the form of bands or bridles, by which a fold of gut may be bound down, or encircled, and strangulation produced. In other cases, as stated by Baudelocque, Arnaud, and Callisen, the same occurrence may

happen, from a knuckle of intestine passing through a ruptured opening in the adherent omentum.

2nd. Reduction may be prevented, by enlargement of the omentum from engorgement of its vessels. When the hernial aperture is so small as to maintain a moderate pressure on the omentum, without producing strangulation, we find, that, in process of time, its loose and cellular texture becomes engorged and tumid, in consequence of its continuing to receive a free supply of blood by the arteries, while its return by the veins is prevented, or at least much impeded. This state of parts may exist for a considerable time, before any material change is produced in the structure or connections of the displaced omentum. In process of time, however, whether from a continued constriction of the parts, or from external injury, the portion of omentum implicated in the tumour becomes morbidly changed, adherent, or complicated with the effusion of fluid into the hernial sac.

3rd. That part of the omentum which passes through the neck of the sac, is frequently compressed into a hard smooth cord, while the portion in the sac itself remains loose and capable of being expanded. This is considered by Pott, as the most frequent impediment to the reduction of an

epiplocele. The slender pedicle which the pressure of the hernial aperture produces, and the coiled state of the mass of omentum within the sac, must render reduction always difficult, and often impracticable.

4th. The return of the displaced omentum may be prevented, by its having undergone a diseased enlargement, the size of which bears no proportion to the diameter of the opening through which it must pass. Although the omentum may continue in a hernial sac for months, and even years, unchanged in texture or appearance; yet, more frequently, the unnatural position in which it is fixed, the pressure and contusions to which it is externally exposed, the continued engorgement of its vessels, from impeded venous circulation; and especially the repeated attacks of inflammation to which it is subjected, gradually convert it into a hard thickened irregular mass, which possesses none of the characters of the healthy texture. I dissected, some years ago, a large inguinal epiplocele of the right side, which had been irreducible for fourteen years. Many ineffectual attempts were made during the patient's life to return the parts into the abdomen; and the failure was attributed more to the supposed existence of firm and extensive adhesions, than to the size of the tumour. It was ascertained, after death, that no part of the omentum was adhering

to the sac, but it was so enlarged, and disorganized, that reduction could not be accomplished, until the inguinal ring was divided for nearly three inches. The induration which takes place in the diseased part is sometimes so great, as to resemble scirrhus; and may be accompanied either with, or without, adhesions to the sac. When adherent, the morbid change is generally greater than when it is unattached to the sac.

5th. An epiplocele may be also irreducible from adipose enlargement of the omentum, without any *morbid* alteration of the affected part. This state may be accompanied with, or independently of, general obesity. The size of the tumour is sometimes very great, but it is now and then liable to such sudden and decided variations in bulk, as are observable in none of the morbid conditions of the omentum. This does not depend on the alternate protrusion, and replacement of additional parts of the membrane, but on constitutional causes. Whatever produces general emaciation, will also cause a considerable absorption of the fatty matter of the rupture, so as greatly to reduce the size of the tumour, and occasionally to permit of its return into the abdomen. Sir A. Cooper succeeded in a gentleman, who was reduced from hydrothorax, in returning an old irreducible hernia *: and in the following case, which

* See Lectures by Tyrrell, Vol. III. p. 18.

came under my own observation, a similar termination was effected, after an attack of fever.

W. N. aged 58, was seized on the 3rd of January, 1829, with violent pain in the abdomen, extending from the left groin to the epigastrium, with nausea, vomiting, and constipation. When visited on the 4th, the pain was constant and severe, increased by pressure, and confined to the left side, and the only relief he experienced was by bending the trunk and thighs, so as to relax the abdominal muscles. A doughy, rather painful, tumour, about the size of a hen's egg, was discovered passing from the left inguinal canal, by a hard and narrow neck. This tumour had existed for nearly twenty years, and was often accompanied, especially on exertion, or when the bowels were constipated, with smart attacks of colic and vomiting—the pain usually commencing in the tumour, and extending to the abdomen.

The disease had all the characters of an omental hernia. It was probably from the tumour being so long irreducible, that its replacement was prevented, by adhesions: nevertheless, as it was possible that the symptoms of strangulation depended on the escape of a new portion of omentum, which might be returned, with relief to the patient, the taxis was gently, but ineffectually employed. He was bled from the arm, ad deliquium, leeches

and fomentations applied to the tumour and abdomen, and purgatives, and enemata of various kinds employed for three days, before the bowels were freely opened, or the urgent symptoms relieved. After this, the tumour continued undiminished, but the pain gradually subsided.

I did not see this patient again, until the beginning of March last, when, in consequence of the great increase in the size of the tumour, he called to request my advice. It was larger than the fist, had a soft doughy irregular feel, was of a pyriform shape, and by its bulk and weight, and the dragging at the stomach which it seemed to excite, when he assumed an erect position, created very great uneasiness. As he had become very corpulent, I attributed the increase of the tumour to this cause, and recommended the use of a suspensory bandage, and spare diet.

In the following month, he had an attack of fever by which he was confined for six weeks, and of course greatly emaciated. When convalescence took place, I was surprised to find the tumour so much reduced, below its original size, that I was enabled, by very moderate pressure for a few minutes, to return it fairly into the abdomen. A truss was afterwards applied, and the return of the disease prevented.

In irreducible herniæ of large size, whether intestinal, or omental, the patient is not unfrequently subject to smart attacks of colic, with pains in the tumour, after taking a hearty meal. When the rupture consists wholly of omentum, the pain commences almost immediately after eating, but when of intestine the uneasy feelings are longer in appearing, and seem to take place, only, when the contents of the intestinal canal are passing through the tumour. Besides these symptoms, an irreducible epiplocele is often accompanied by severe dragging or twitching at the stomach, and by repeated vomitings; in consequence of the stomach being compelled to follow the motions, communicated to the *fixed* omentum, by the intestines and abdominal muscles. These symptoms are, also, most urgent after meals, because, from the distention of the bowels, the stomach is pushed up towards the diaphragm, and the omentum put more completely on the stretch, and also rendered more convex externally by the pressure of the intestines.

As the stomach and colon become accustomed to the restraint arising from this unnatural fixture of the omentum, we occasionally find, that the urgent symptoms gradually diminish, or even altogether disappear. This fortunate result has been, however, less frequent in my practice, than

from the assertions of Pott, Boyer, Cooper, and other writers on this subject, I was led to expect. It cannot be denied, that the membranous viscera of the abdomen are less firmly fixed in situ, admit of greater freedom and latitude of motion, and may, therefore, be more completely and extensively displaced, from their natural position, than those of a different structure. The mobility of the stomach, and that part of the colon to which the omentum is attached, is well known, yet, there are limits, beyond which these parts cannot be displaced, without deranging, or altogether impeding, their functions, and of course exciting painful, and even dangerous symptoms.

When the distension of the abdomen is moderate, an irreducible epiplocele may cease to produce any disagreeable symptoms ; but when the stomach is full, the bowels constipated, and unusually distended with flatus, or fæces, when much straining of the abdominal muscles occurs, we cannot fail to meet with very distressing symptoms. It is the liability of the abdomen and its contents to great and often to sudden variations in size, even in healthy individuals, that enables us to explain the repeated recurrence of these painful paroxysms. They are generally more urgent when the omentum is suddenly, than when it is slowly, put on stretch ; yet even in the latter state, they are sometimes marked and severe.

A few years ago, a woman about twenty-eight years of age, who came under my care for a different disease, had a considerable sized, irreducible, crural epiplocele of the left side. She had experienced for several years, repeated attacks of dragging at the stomach, vomiting, and constipation; but these were mild, when compared with the violent, incessant, and distressing attacks, to which she was subject, after she became pregnant. As the abdomen became more and more prominent, the severity of the symptoms increased. During the last two months of pregnancy, she was constantly confined to bed, and only experienced relief when she lay on her left side, with the trunk bent forward, and the thighs drawn up to the abdomen. She could not extend herself in bed, nor assume an erect position, without immediately exciting vomiting and pain at the stomach. The relief she experienced after delivery, was very decided.

When an inguinal epiplocele has been long irreducible, we sometimes find, that the omentum becomes so altered in structure as to produce, by pressure and irritation on the spermatic cord, a diseased state of the testicle, with or without effusion into the tunica vaginalis. In the following case, this combination existed, and had nearly proved fatal, from an attempt to obtain a radical cure of the hydrocele.

J. A., shoemaker, ætat. 53, had been subject for about nine years to a small, irreducible, inguinal rupture of the right side. During this period he had, besides, repeated attacks of pain in the tumour, colic, and constipation, occasional uneasy feelings in the testicle. For the last year, these gradually increased in severity, and extended to the back; the testicle began to enlarge, and was painful when handled. He experienced some relief from the use of a suspensory bandage, but the swelling continued to increase.

When he called, on the 28th of Dec. 1821, to solicit my advice for the first time, the scrotum was distended to the size of two fists. The tumour had the pyriform shape, the tense, elastic feel, and the transparency of a hydrocele. The inguinal canal was considerably distended, by a firm substance, apparently the neck of a tumour, which was both seen and felt to be distinct from the general swelling of the scrotum. This tumour, which passed about an inch and a quarter in front of the cord, to which it was apparently adherent, was larger than, and nearly the shape of, a goose's egg; somewhat irregular on the surface, of a firm texture, and painful when pressed.

I punctured the scrotum with a trocar, and when the fluid was evacuated, discovered that the testicle was enlarged to more than double its na-

tural size, exquisitely painful to the touch ; and that the epididymis, and spermatic cord were thickened. As the patient was greatly incommoded by the bulk of the swelling, he was anxious to have such means adopted as would prevent its recurrence ; but from the enlargement and irritability of the testicle, and the existence of a painful omental rupture on the same side, I decidedly opposed any attempt to cure the hydrocele by injection. The diseased state of the cord and testicle, to which the effusion was to be attributed, appeared to depend on the continued pressure of the displaced and diseased omentum. As this hernia was not, however, producing very urgent symptoms, I did not think it prudent to interfere with it, but recommended such local applications as were likely to restore the testicle to its natural condition, and in this way prevent the re-accumulation of fluid in the tunica vaginalis.

My advice was not complied with, and I therefore heard nothing further of this patient for about three months, when I was desired to visit him at his own house. I then learned, that four days before, in his anxiety to get rid of the hydrocele which had regained its former size, he had persuaded a surgeon after puncturing the scrotum, to inject the sac with wine and water. Acute pain in the testes and back was immediately excited, and was so severe, that the injection could

not be retained above two minutes : it was therefore speedily, and I believe, completely evacuated. Although for several hours the pain continued severe in the scrotum, very little tumefaction took place, and only a faint blush of redness was observable around the margin of the puncture.

On the following day he had a smart rigor, succeeded by febrile excitement, obtuse pain in the hernial tumour, and slight nausea. Ineffectual attempts were made to open the bowels, the pain gradually extended to the abdomen, which became more and more intolerant of pressure, and slightly tympanitic.

At my visit on the third day, the symptoms of abdominal inflammation were well marked ; he vomited incessantly, and had a small wiry pulse, and an anxious countenance. The hernia was rather larger than when I formerly examined it, but otherwise it was unchanged, except by being exquisitely painful on pressure. The severity of the symptoms was greatly aggravated, so soon as flatulent distension of the belly took place.

The usual antiphlogistic treatment was actively and judiciously employed from the commencement of the attack by the attending surgeon, but with little or no effect ; and as it appeared that the patient's life was in imminent danger, I pro-

posed, for the following reasons, the immediate performance of an operation.

The tumour was tense and acutely painful, and although not in a state of active strangulation, still it was obvious that a considerable, and probably an injurious degree of compression, was maintained over the neck of the rupture by the pressure of the inguinal ring. It was probable, that before inflammation occurred, the inguinal canal was completely filled by, and adhering to, the omentum, and that the increase of size which necessarily took place during the inflammation was greater than the expansibility of the aperture would permit ; a degree of stricture was therefore the consequence, which might add materially to the sufferings and to the danger of the patient ; and for the removal of this state alone an operation might be beneficial. Might not also the operation by removing the superincumbent pressure of fasciæ, sac, &c. as well as by enlarging the inguinal ring, free the inflamed omentum of a source of painful and injurious compression, and place it in a more favourable state for subsequent treatment ; similar to what is observed in subfascial and other deep-seated inflammations ? It was evident, also, that the omentum within the abdomen was greatly on the stretch. The inflamed state of this membrane and the additional distension to which it was subjected by the flatulent en-

largement of the bowels, probably gave rise to the incessant vomiting and excruciating paroxysms of pain. These symptoms might be mitigated, if not altogether removed, could we succeed by an operation in relieving the omentum, and in permitting it to resume its natural situation and unrestrained movements within the abdomen.

On the contrary, I was aware, that the inflammation of the omentum was attributed to the stimulating injection employed for the cure of the hydrocele, and that it was not confined to the tumour, but had extended into the abdomen. In this respect it was certainly different from an ordinary case of strangulated epiplocele, arising from the sudden protrusion of the omentum, and of course greatly less favourable for an operation. Still, the critical situation of the patient, and the want of success in the active employment of antiphlogistic means, induced me to recommend an operation which held out a slight prospect of success, without materially adding to the danger of the patient.

I accordingly performed the operation about seventy hours from the commencement of the inflammatory symptoms, in presence of the attending surgeon and several of my pupils. The sac contained about half an ounce of moss coloured serum, the omentum was of a dark red colour,

of a pyriform shape, of a dense texture, covered by small granular pieces of fat, and could not be expanded as in the natural state. It was adhering firmly to the posterior surface of the sac, and the neck of the tumour was evidently much compressed by the external inguinal ring. I detached with the finger, and divided with the knife, these unnatural attachments, and being satisfied that the tumour consisted only of omentum, I divided the pedicle. By sponging with cold water the oozing of blood soon ceased, when I proceeded to enlarge the ring and to ascertain if it were possible to destroy the remaining adhesions, and return the omentum into the abdomen. A director was introduced between the edge of the ring and omentum, and the former part divided directly upwards. I then detached the remaining adhesions with a probe, and with little difficulty pushed the omentum before the finger fairly into the abdomen.

The patient vomited repeatedly during the operation, but only once after it was completed. In about four hours he was greatly relieved by a free bleeding from the arm, and had soon after, by means of the compound colocynth pill and an enema, several copious and offensive stools. From this time all the urgent symptoms subsided, and with the exception of a free suppuration of the sac, no untoward occurrence happened during the cure. In five weeks he was able to bear the press-

ure of a truss, which he still wears. When I saw him, a few days ago, he was in excellent health, and stated, that he had never experienced since the operation any of those distressing attacks of colic and dragging pains at the stomach, by which he was formerly so much annoyed.

When an irreducible omental hernia is complicated with hydrocele, it would appear, that the usual expedients for the cure of the latter disease cannot always be safely employed. The similarity of structure and contiguity of the affected parts is such, that when inflammation is excited by injection or otherwise for the purpose of producing a cohesion of the tunica vaginalis, it is liable to be propagated to the omentum or its sac, and give rise to alarming symptoms. It is also necessary to consider, before any operation is proposed, that as a preternatural collection of fluid sometimes takes place in the hernial sac itself, which may present all the characters of hydrocele, great caution is requisite in the diagnosis.

When the omentum is fixed to the sac by extensive adhesions, or when it is neither inflamed nor irritated, it is seldom that any great accumulation of fluid takes place. Sometimes, however, the sac is so much distended, as to prove an additional source of uneasiness to the patient. Pott

was repeatedly obliged to puncture the sac and evacuate the fluid, in order to remove the inconvenience arising from the enlargement and weight of the scrotum; and when this was neglected, gangrene was sometimes produced.

To distinguish, therefore, between hydrocele complicated with an irreducible epiplocele, and a collection of fluid in the hernial sac, is of some practical importance. In the former, the fluid gradually accumulates in the most depending part of the scrotum, and extends upwards, leaving, as in the above case, a separation more or less marked between the two tumours. But, when the accumulation takes place in the sac, the swelling commences below the inguinal ring, and proceeds downwards, unless the hernia is scrotal, when it will begin in the same situation with hydrocele. We may expect, however, to find, when the fluid is confined to the sac, that the tense swelling is greater and higher up in the groin, and that the irreducible omentum is more completely surrounded by it than in the other form of disease.

The propriety of the operation had recourse to in the preceding case, may to many surgeons appear questionable. We are told, that when the local symptoms of a strangulated epiplocele are severe, and when they seem to depend rather on

inflammation than on strangulation, an operation is generally useless, and frequently dangerous *. It has been already shewn, that even, in these circumstances, an operation may not only be necessary, but even highly successful ; and, that the temporary exposure of a piece of inflamed omentum, in a hernial sac, is not so very dangerous as some surgeons assert. The operation will assuredly be more successful, when the omentum has protruded suddenly, and become strangulated by the immediate pressure of the opening through which it has passed ; but even when the disease is of long standing and irreducible, the additional size it acquires when inflamed, or engorged, may cause over distention of the hernial aperture, and produce such painful and injurious constriction, that an operation may become necessary. In this state the symptoms are usually less rapid in their progress, but as soon as the tumefaction of the omentum has advanced to its greatest extent, the pressure at the ring may be as considerable, and the stricture nearly as complete, as when directly produced by the escape of a larger piece of omentum than the opening can contain.

Besides the immediate relief to be expected from the operation in the case now detailed, I had also in view, did the state of parts permit, to de-

* Vide Key's Lecture on Omental Hernia, in Medical Gazette, Vol. IV. p. 105.

tach the omentum from the sac and inguinal canal, and return it fairly into the abdomen. This plan was successfully adopted, and the patient completely freed from the return of those distressing attacks of vomiting, and spasmodic pains in the abdomen, to which he was, formerly, so liable. Although this procedure is not necessary for the removal of any immediate danger under which the patient may be placed, it will be found essential, in many cases, to his future comfort, and ought to be adopted, wherever it is practicable.

We are advised by Hey*, Scarpa†, Boyer‡, Richerand§, and other writers, not to separate the adhesions which the neck of an omental rupture may have contracted with the neighbouring parts, particularly when the disease is of long standing, but to cut off the prolapsed portion, and allow the rest to remain in the wound. Of these authors, some appear to be influenced by the fear of hemorrhage taking place into the abdomen, from the cut edge of the omentum, whilst others maintain, that the hernial aperture is in this way effectually plugged up, the return of the disease prevented, and a firm surface obtained for granu-

* Practical Observations in Surgery.

† Treatise on Hernia, by Wishart. Edin. 1814.

‡ Traité des Maladies Chirurg. Tome VIII.

§ Nosographie Chirurgic. Tome III. Troisième Edit. Paris, 1812.

lations. Sir A. Cooper, even, in his valuable work on hernia, speaks (at page 32) of returning the omentum into the abdomen, with its cut edge to the sac, so as to form a plug, and produce a closure of the opening.

By permitting the divided omentum to remain fixed to the neck of the sac, a temporary closure of the aperture will be effected, and the immediate descent of any portion of intestine or omentum for a time prevented. But, on the other hand, besides the danger of the intestines adhering to, or becoming entangled with, this fixed band of omentum, there is the risk of a second hernia forming at the same aperture. When the abdominal muscles are called into powerful action, the fixed omentum serves as an inclined plane along which the intestines glide, and by which the impetus will be more effectually directed to the old hernial aperture, than to any other part of the abdominal parietes; and, of course, the risk of a secondary tumour forming, be greatly increased*.

The baneful effects on the stomach, which in nine cases out of ten will be found to accompany the permanent adhesion of the omentum to the

* In omental herniæ, which have existed for years, a portion of gut not unfrequently escapes into the same sac, and becomes strangulated.

inferior hernial openings of the abdomen, are also entitled to our consideration. Sometimes the function of the stomach is only at times impaired, but in other cases this viscus has been dragged from its natural position, even below the middle of the abdomen, digestion destroyed, the most painful symptoms excited, and bad health ultimately induced. In addition to what has been already stated, I select the following cases out of many on record, to prove this fact.

M. Guerin* saw in the Hôpital de la Charité a man, upon whom the operation for strangulated hernia was performed, and a portion of gangrenous omentum removed, the healthy part being allowed to remain in the wound. The wound was healed in five weeks, but the patient continued to vomit after every meal. He was, at last, reduced to the necessity of eating in bed, with his legs drawn up to the abdomen, so as to relax the omentum, and prevent its dragging influence on the stomach.

M. de la Faye† opened the body of a woman, in 1740, who had been operated upon for hernia several years before. From this time functional derangement of the stomach took place, and she ceased to enjoy good health. The omentum was

* Mémoires de l'Académie Royale de Chirurgie. Tome III. p. 406.

† Ibid.

adhering to the inguinal ring, and the stomach, which was dragged almost perpendicularly, had lost its natural shape, and assumed the form of one of the large intestines.

Vesalius relates, in his work on anatomy, an instance of great and unnatural displacement of the stomach, from an irreducible epiplocele of from four to five pounds weight; and Dr. Robert Lewis, Physician, in Edinburgh*, met with a case somewhat similar in the year 1722. The patient was sixty-three years of age, and had been subject, from his youth, to an irreducible epiplocele, which gave rise to a variety of urgent symptoms. On dissection, the greater part of the omentum was found in the left side of the scrotum, and attached to the testicle; the stomach was attenuated, inflated, and greatly displaced: the pylorus lay obliquely downwards, as far as the right side of the umbilicus, and the œsophagus entered the stomach at an acute angle.

The necessity of returning the omentum into the abdomen whenever it is practicable, that it may regain that position in which its attachments to the stomach and colon would naturally place it, is, I think, sufficiently obvious. I must, therefore,

* Medical Essays and Observations, Vol. I. p. 231. 3d Ed. Edinburgh. 1747.

dissent from those authors who maintain, that the permanent adhesion of the omentum to a hernial sac is productive of little inconvenience, and that, at first, although the stomach and colon may have their functions interrupted, these parts soon become accustomed to this restraint, and cease to feel its influence. It happens, on the contrary, in many instances, that the symptoms instead of yielding become daily more distressing, and continue to harass the patient with increasing severity during the remainder of life.

Besides, we sometimes find, that the disorganization to which the irreducible omentum is liable, is not confined to the tumour, but extends into the abdomen. The abdominal portion of this membrane, is, from this cause, as well as from the stretching, pressure, and irritation, to which it is subjected, apt to become extensively and incurably diseased. I have seen one case, and a preparation of the diseased parts of another, in which the omentum within the abdomen, as well as the portions contained in the irreducible ruptures, had lost every vestige of its natural structure, become exceedingly bulky, indurated, and tuberoso, and produced death by exciting ascites.

In the following case of irreducible epiplocele, the adhesions of the omentum were also destroy-

ed, and the urgent symptoms removed, although the parts were not in a state to promise very marked success.

In January 1823, a country labourer, 57 years of age, of a feeble constitution, waited upon me at the request of a surgeon in his neighbourhood, regarding an irreducible scrotal hernia of the right side. The tumour was about the size of the fist, of a pyriform shape, and was doughy and irregular. It first appeared twelve years ago, from violent exertion, and for three years after continued to protrude occasionally, but to be easily reduced. After this it began to increase in size, became irreducible, and has maintained its present magnitude for about six years. He is subject, especially after meals, or when the abdomen is much distended, to a dragging at the stomach, vomiting, and constipation. These symptoms give way occasionally, when he lies on the left side, with the body bent forward, and the thighs drawn up to the abdomen; at other times, they continue unrelieved for hours, and only subside after free alvine evacuations are procured.

I recommended the use of a suspensory bandage, which he continued to wear for two months with partial relief. At this time, in consequence of exertion in lifting a heavy weight, the neck of the tumour suddenly enlarged, followed by acute

pain in the part and belly, by nausea, and vomiting. These symptoms increased, with a quick, small pulse, anxious countenance, thirst, hiccup, and constipation. Blood-letting, the warm bath, purgatives, and the tobacco enema were employed without success, and about thirty hours from the commencement of this attack, I was requested by the surgeon in attendance to visit him. The symptoms of strangulation were then so urgent and well marked, as to induce me, after a moderate use of the taxis, to recommend the immediate performance of the operation. To this proposal the patient refused to submit; we therefore agreed to apply ice to the tumour.

It was impossible to ascertain, on carefully examining the neck of the hernia to which the additional tumefaction was confined, whether the recently protruded part upon which the urgent symptoms seemed to depend, was intestine or omentum. From the severity and obstinacy of the symptoms, it was supposed, that a portion of bowel had escaped, but in either case, the application of cold might be beneficial.

He experienced considerable relief in less than half an hour after the bladder containing pounded ice was applied, and at the end of an hour there was a good deal less tension and tenderness of the tumour and abdomen, the vomiting had ceased,

and the pulse become slower. It was agreed to continue the cold some time longer, while attempts should be made to open the bowels by the compound colocynth pill and enemata.

The attending surgeon was, unfortunately, prevented from seeing this patient again for nearly twelve hours, and during this time the ice was repeatedly renewed, and continued without interruption. When then visited, he expressed himself as quite well,—the pain of the tumour and abdomen was completely gone, and he had had several copious stools. The integuments covering the tumour were cold, hard, and of an ash grey colour, whilst the adjacent skin was yellowish and ecchymosed. Warm applications were very imprudently had recourse to on the removal of the ice, and, as might have been expected, accelerated, if they did not actually produce, the complete gangrene of the discoloured integuments which soon followed. The slough separated in nine days, when the hernial sac, testicle, and cord were freely exposed.

When I saw him again on the third day after the detachment of the slough, I found this extensive surface suppurating freely. The tumour, which was about the size of a large lemon, appeared to be inclosed in its sac, had all its external attachments destroyed, and was only fixed to the

inguinal ring by a pedicle, about the thickness of the finger. I divided this part with the knife close to the ring, having previously ascertained that there was no intestine included. Little pain was produced, and only a few drops of blood lost.

I was now anxious to secure, if possible, greater comfort to the patient, by having the omentum returned into the abdomen. The parts were so completely exposed, that I could with great ease examine the state of the ring. The adhesions were here pretty intimate, but so soft, from the previous suppuration, that I had no difficulty in destroying them with a probe, and pushing the omentum before the finger into the abdomen. Its texture was considerably softened, and I was afraid I might have injured it by the very gentle force applied with the finger, but if so, no bad consequences followed.

It was several weeks before the sore filled up and cicatrized, and his health suffered a good deal by confinement. By the application of a truss the return of the disease was prevented, and he now enjoys a share of health and bodily comfort, to which, for several years before, he was a stranger.

I have found the use of cold to an omental rupture by means of ice, snow, or evaporating lotions,

more successful in promoting reduction, than any other external application. If the omentum be engorged or inflamed, the cold constricts the vessels, and of course diminishes the disproportion between the tumefied mass, and the opening through which it has passed. This effect will be materially assisted, by the continued pressure kept up on the tumour by contraction of the scrotum and surrounding integuments.

Sir A. Cooper once succeeded in reducing an omental inguinal hernia which had been down for a fortnight, by applying ice for four days; and the same success has attended its employment by others. It is sometimes, however, carried to a dangerous extent, and gangrene produced. This is almost uniformly confined to the integuments; at least, I have not met with any case, in which the contents of the sac were involved in the mischief. In robust and healthy subjects, the application may be continued for days with impunity; but when the patient is old and debilitated, its continuance for a few hours may be sufficient to destroy the vitality of the parts. Its effects should be, therefore, carefully watched by the surgeon.

The old practice of including the divided omentum in a ligature, before returning it into the abdomen, is now happily exploded, and all that we require to do, is to secure the bleeding vessels in-

dividually, with fine ligatures. Sharp and Pott often returned the cut omentum without applying a ligature, and were never troubled with hemorrhage. When the excised portion which forms the hernia is small, and not materially changed in structure, little hemorrhage is to be expected; but when its volume is greatly increased, and morbidly altered, the vessels will be increased in the same proportion, and may require to be tied. I have seen one case, in which a smart bleeding followed the excision of a diseased piece of omentum, in an entero-epiplocele; and Hey* met with two cases, where, from his not having tied the bleeding vessels before the divided omentum was replaced in the abdomen, hemorrhage occurred, which nearly proved fatal.

Suppuration, although rather uncommon, sometimes takes place in the sac of an irreducible omental rupture. Le Dran mentions a case in which the pus entered the abdomen, spread along the omentum to the stomach, and proved fatal. In the following case, this diseased state was more circumscribed and the result more fortunate.

I was desired to visit J. J., labourer, aged 56, on the 13th June 1828. I found, that he had been confined to bed for three weeks in consequence of a large, pyriform, and painful tumour,

* Practical Observations, in Surgery, p. 188.

occupying the left groin. It extended from about half an inch above the external inguinal ring where it was nearly as thick as the wrist, to the bottom of the scrotum. The neck of the tumour which was painful on pressure, and where a distinct impetus was felt on coughing, had an irregular, doughy feel; as also the whole extent of the tumour posteriorly; while anteriorly it was tense and elastic. The integuments were much thickened, but not inflamed: he had slight pain on pressure for an inch or two above the left inguinal canal, with occasional flatulent pains in the belly, but without swelling or tension. His pulse was about 100, his tongue loaded, and he had occasional nausea, but without vomiting. Upon inquiry I found, that he had been subject to a reducible hernia in the left side, for many years. That about two years ago, a small portion could not be returned, but it gave him no uneasiness, nor did it prevent him from wearing a truss. About seven weeks ago, a large portion suddenly descended, which soon became painful, as he imagined, from being bruised. He continued at his employment for four weeks longer, when the increasing pain and swelling obliged him to desist. For the first ten days of his confinement the pain of the tumour was moderate, his bowels were with difficulty opened by purgatives, and he had repeated attacks of colic, with a painful sensation of dragging at the stomach. About eight

days ago, a surgeon was called in, and made repeated attempts to reduce the tumour, but unsuccessfully, and prescribed purgatives, leeches, and fomentations.

I was convinced, from the history of the case, and the characters of the tumour, that it was an omental rupture, with probably a considerable effusion of fluid into the sac. I did not think it possible, that any portion of bowel was included, as, from the tension and firmness of the tumour, it appeared impossible that the contents of the alimentary canal could have passed through it. The tumour was evidently in an inflamed state; but as this morbid action had not spread much, if at all, into the abdomen, and as the symptoms were mild, I did not think an operation warranted. I therefore put the patient on an antiphlogistic regimen, ordered leeches to the tumour, to be followed by cold evaporating lotions, purgatives, and an occasional anodyne.

There was little change of the symptoms till the evening of the 15th, when they began to increase. On the forenoon of the 16th he complained of acute pain, extending from the tumour to the umbilicus, and back, aggravated by pressure, coughing, and deep inspiration. He had vomited repeatedly during the night, had troublesome hiccup, an anxious countenance, a dry and thickly

furred tongue ; with the pulse at 116. The shape of the tumour was unaltered, but it was larger, more tense, and fluctuated more distinctly than on the 13th.

I suggested to the patient the propriety of his submitting to an operation, to which he at once assented. I commenced, about three o'clock P. M., in the presence of Dr. Weir, and Mr. Stirling, by making an incision about two inches and a half in length, over the neck of the tumour. After dividing the integuments, fascia, and cremaster muscle, there still remained a thick, dense, covering, which was raised on the director, and cut, in five or six successive layers, before the sac was opened. Instead of serum escaping, as was expected, about eight ounces of thick pus flowed out. The posterior surface of the sac was covered, through its whole extent, by a hard irregular mass, which could be traced from the most depending part of the tumour, into the abdomen. This part had the plaited, ridgy appearance which diseased omentum frequently exhibits, and I had no hesitation in considering it to be a morbid portion of this membrane. There were, also, several bands of adhesion, apparently recent and easily torn, passing from the one side of the sac to the other, anterior to the omentum. One of these lay over, and closed, the external inguinal ring, and seemed to account for the fluid not escaping

into the abdomen, when the taxis was employed. It was easily torn by the finger, which then passed through the inguinal canal into the abdomen. From the open state of this canal it was evident, that inflammation, and not strangulation, was the cause of all the symptoms and of the morbid appearances.

As the patient had vomited severely during the operation ; as he was greatly exhausted, cold, and death like ; with a feeble pulse ; and as the adhesions of the omentum to the ring, sac, and testicles were intimate and extensive, I was deterred from making any attempt to remove the diseased parts. The upper half of the wound was closed by a suture, and adhesive plaister, while the depending part was left open for the escape of matter.

In a few days, all the unfavourable symptoms disappeared, and he complained only of the copious discharge from the wound, and of occasional attacks of colic, especially on taking purgatives. In about three weeks, the portion of omentum occupying the inferior part of the sac, was found considerably detached, had a florid, granulating appearance, and projected between the edges of the wound : this I removed with the knife, but could not separate the remainder. The wound was healed, and the patient able to walk out, about

the end of July. During the two subsequent months he was often confined by spasmodic pains in the abdomen, and vomiting, but since that time, I have had no means of ascertaining, whether or not these attacks have ceased to annoy him.

Had the operation not been performed in this case, a fatal result might have been ultimately expected, from the purulent matter finding its way into the cavity of the abdomen; its escape externally being prevented by the thickened and condensed state of the integuments covering the tumour. It shows, also, that a large portion of omentum may be exposed in an open, suppurating wound, and subjected to irritation for weeks, with impunity. Nevertheless, we should do well to recollect, that although great liberty may be used, in dividing the preternatural adhesions between the omentum and sac, and in excising such parts of it as may be diseased, yet in bad habits, a very trifling injury inflicted upon it, may prove fatal. (See page 286.)

In May, 1827, I was requested by a surgeon in town, to visit a woman who three days before, had been tapped at the umbilicus for ascites. She had had for several years at this part a small reducible hernia of a spherical shape. As the integuments were thin, and the tumour transparent when viewed with a candle, it was determined to evacuate

the fluid from the abdomen by puncturing the sac. This was done with great ease, and without pain to the patient, and a bandage carefully applied. She had been, for several months, in bad health, was much emaciated, had a cachectic appearance, and laboured under a tuberculated enlargement of the liver.

About eight hours after the operation, she began to complain of nausea, slight uneasiness in the region of the stomach, and tendency to syncope. In a few hours vomiting commenced, and continued with little interruption; and the bowels were only once imperfectly moved, although purgatives and enemata were freely employed. The pulse was small, weak, and indistinct, the extremities cold, the tongue white, and dry, the thirst urgent; and when I saw her, there was an unusual appearance of collapse, without any marked indication of acute disease. The pain, which was only occasional, trifling, and not increased by pressure, was confined to the umbilical and epigastric regions; where there also existed a little flatulent distension of the belly; but without tension or hardness. Before death, which took place on the sixth day, hiccup became one of the most troublesome symptoms; and she was occasionally delirious.

On dissection, the omentum about an inch and

a half from its inferior margin, was fixed by old adhesions, to the upper edge of the umbilical opening, or neck of the sac. On examining the loose portion, which had probably formed the contents of the hernia, before the commencement of ascites, it was found of a dark, red colour, and it contained a small triangular opening, which corresponded, in size and shape, to the trocar that was employed. The rest of the omentum till within half an inch of the stomach was livid, and gangrenous. There were, a few patches of inflammation on the intestines, which the omentum covered, but in no other situation, and there was an effusion of ten ounces of moss coloured fluid into the abdomen.

The nature of the disease was, in this case, clearly ascertained on dissection; but during life, the symptoms were so obscure, as to render it impossible to establish a diagnosis. They were more characteristic of that collapse and exhaustion, which sometimes follow paracentesis abdominis, in worn out and debilitated subjects, than of acute inflammation. The vomiting and hiccup were the only prominent symptoms, and these might have depended on very different causes.

We find attempts made, by some of the older nosologists, to point out the prominent and distinctive symptoms of idiopathic inflammation of

the omentum, so as to establish the means of distinguishing this disease, from peritonitis, or enteritis. Sauvage gives the following definition : “*Epiploitis cognoscitur ex febre inflammatoria, cum dolore, acuto lancinante, per superiorem, et mediam abdominis regionem, infra tegumenta, in ipso abdominis cavo ;*” while Vogel, who applies to the disease the term “*Omentitis*”, affixes to it the following symptoms : “*Omenti inflammatio, febris continua, cum dolore, et tumore, in regione epigastrica, et hypogastrica.*”

We shall seldom, however, succeed in distinguishing the disease during life. The symptoms may be so obscure, and ill defined, as not to indicate the seat of the disease, or they may resemble so much, those of peritonitis, as to render a diagnosis exceedingly difficult. It is only when the inflammation commences in an omental rupture, and extends to the abdominal portion of this membrane, that we can correctly ascertain its seat, and existence.

The injury inflicted by the trocar in the above case, was merely accidental, and might have happened in the hands of the most expert and cautious surgeon. The old hernial sac contained, at the time, not its usual contents, but only a portion of the abdominal fluid ; and there were no means of ascertaining, that the omentum was adhering to

its neck, and within reach of the instrument. I have repeatedly evacuated the fluid of ascites, by puncturing the sac of an old umbilical hernia, not only with safety, but with greater facility, and less inconvenience and pain to the patient, than if the usual situation had been selected. The practice is sanctioned by Sir A. Cooper, and may be employed in any case where the sac is filled with the fluid of the abdomen, and not its usual contents.

An omental rupture is liable to be mistaken for a variety of diseases. When an intestinal hernia contains solid fæces, it presents some of the most prominent characters of an epiplocele. The history of the disease will, however, enable us to arrive at a correct conclusion.

Hydrocele of the spermatic cord, varicocele, &c. have also some resemblance to an inguinal epiplocele. It has likewise been mistaken for a common hydrocele. M. Lamorier, of Mont-Pellier*, found, on making an incision for the radical cure of a hydrocele, that he was mistaken as to the complaint, and that the tumour was an omental rupture, loaded with hydatids. The diseased part, which weighed four ounces and two drachms, was removed, and the patient recovered.

* Mém. de l'Académie Royale de Chirurgie. Tome III. p. 404.

Adipose tumours are sometimes attached to the sheath of the spermatic cord, immediately exterior to the inguinal ring; but more frequently, they are formed within the abdomen, in the cellular texture which connects the peritoneum to the neighbouring parts, and are protruded through the ring. They thus occupy the position, and possess all the external characters of an inguinal epiplocele; and often render a diagnosis impracticable.

When small in size, they can be reduced with facility, and prevented from again escaping, by the application of a truss; but when large, or indurated, they continue irreducible, and it is in this state they are likely to engage the attention, and baffle the skill and tact of the surgeon. Pelletan relates, in his "*Clinique Chirurgicale*,"* several curious cases of such tumours.

In nearly all the recorded cases, where the adipose tumour originated within the abdomen, the peritoneum was pushed before it, so as to form a sac analogous to a hernia. But, in the only case of this kind, which I have had an opportunity of examining, the tumour was found to have originated in the cellular texture exterior to the peritoneum, close to the outer edge of the internal

* Tome III. p. 33, &c. Paris 1810.

inguinal ring, and to have descended along the cord, and formed, externally, a large pyriform tumour, without being invested by a peritoneal sac. This tumour, which was irreducible, was supposed to be an epiplocele, although not accompanied by any of the symptoms usually attendant on this disease. This opinion was confirmed by the existence, at the same place, of an intestinal hernia, which could be easily reduced, and retained within the abdomen.

After death, which was occasioned by pneumonia, the peritoneum was found dragged through the inguinal canal, by the descent and weight of the tumour, so as to form a sac, into which the intestine passed. The appearance of the tumour, when exposed by dissection, and its texture, when divided, so closely resembled the adipo-fibrous degeneration to which the omentum is occasionally subject, as to render it impossible to distinguish between them.

The nature of the disease was only correctly ascertained, by finding that the tumour was exterior to the hernial sac, and that the omentum was unconnected with the tumour, and occupying the upper part of the abdomen.

Glasgow, 22nd Nov., 1830.

APPENDIX*.

Glasgow, 29th December, 1830.

DEAR SIR,

SINCE I sent you the Essay on Omental Hernia, J. J., the patient upon whom I operated for inflamed scrotal epiplocele, on the *left side*, on the 16th June, 1828, and whose case is detailed at page 274, was admitted into the Royal Infirmary of this city, with a similar disease on the *right side*. As the history of this case is interesting, and of considerable practical importance, I have deemed it proper to forward to you the following statement, as an Appendix to my paper. I saw the patient twice while in the Infirmary, was present at the consultation, the operation, and post mortem inspection; and have since carefully examined the preparation of the diseased parts, which is preserved in the Museum of the Portland Street Medical School. The patient was under the care of Dr. M. Buchanan, one of the attending surgeons, who has kindly favoured me with the necessary details of the case, of which the following is an abridgment.

J. J., aged 58, admitted 2d Dec. 1830. Occupying the right inguinal region, and extending to the bottom of the scrotum, is a firm, doughy, in-

* Vide page 279.

elastic tumour, of the thickness of the wrist, and of a slightly pyriform shape. The integuments covering it are of a dull red colour, and the size of the tumour is not increased by coughing, or by the erect position. There is slight tenderness of the abdomen around the root of the tumour, especially on pressure, but there is no unusual swelling or tension. Bowels are said to have been opened by medicine the night previous to admission. No vomiting; pulse 86, full; tongue clean; general health much impaired.

About two years ago the tumour in the right groin was observed for the first time, and was easily reduced, in a recumbent position; but no truss was applied. Four weeks ago it became irreducible, gave rise to painful feelings in the abdomen, which have greatly increased during the last eight days. Has continued since the previous operation to wear the truss over the left inguinal opening, which is much dilated, and through which an intestinal rupture occasionally protrudes; but not the slightest remains of an omental tumour can be discovered, in this situation.

The taxis was immediately employed, and, apparently, a small portion of the tumour returned, which seemed to afford a little relief. *A dose of castor oil, an enema, cold to the tumour, and fomentations to the abdomen were prescribed.*

From the period of the patient's admission up to mid-day of the 5th of Dec., when the operation was decided on, in consultation, every bad symptom as it arose was judiciously met by appropriate remedies, and it was accordingly performed by Dr. Buchanan a few hours after stercoraceous vomiting had set in*.

An incision two inches and a half in length was made over the neck of the tumour, and when the sac was laid open two ounces of pus escaped. The tumour was wholly composed of omentum, which was engorged, livid, consolidated into a firm mass, and in some points, of a pulpy texture. It adhered so intimately to the sac, as to render its detachment by the finger, or scalpel, altogether impracticable. A portion, about the size of a pigeon's egg, at the inferior part of the sac, gave way under the finger, and was removed. Several firm bands of adhesion were discovered, crossing in various directions, and apparently, compressing the neck of the tumour. When these had been cautiously divided by the bistoury, sero-purulent fluid was pressed into the sac from the abdomen. It did not appear necessary, or even practicable, to enlarge the ring, the adhesions of the omentum to this part being so firm and intimate. The

* The Council of the Society have deemed it proper to abridge the daily reports of this case both here and after the operation, because of their practical inutility in a work like this.

edges of the wound were approximated by a suture and adhesive plaister, and a bandage applied.

Nine o'Clock, P.M. No vomiting since the operation, hiccup and pain of abdomen considerably diminished. Still some flatulent distention about the umbilicus. Pulse 108, sharp ; no stool. *Bled to twelve ounces ; poultice to wound.* To have *extract hyosciam. ten grains, carb. ammon. six grains, and an enema in the morning.* Has had four copious stools.

6th. Although he has slept a good deal and passed a comfortable night after the operation from the medicine administered, every bad symptom with stercoreous vomiting came on before twenty-four hours had elapsed ; and notwithstanding every judicious effort that skill, kindness, and indefatigable attention, could accomplish, he died on the seventh, just forty-eight hours after the operation.

Inspection. On laying open the abdomen, about twelve ounces of sero-purulent fluid were found in its cavity. Very slight traces of peritoneal inflammation were discovered. The omentum was collected into a large, irregular, thickened, dark coloured, mass ; and almost wholly contained in the right hernial sac. On several points of its surface ulceration was detected, and pus deposited,

and the portion contained in the sac was partly gangrenous. The colon, which adhered intimately to the mass of omentum, was dragged from its natural situation, and firmly fixed across, and nearly in contact with, the internal orifice of the inguinal canal. The gut did not adhere to the parietes of the abdomen, or to the ring, but was so fixed down, to the displaced and diseased omentum, as to appear, when first examined, to have its calibre considerably diminished. When, however, the diseased parts were removed, this apparent obstruction disappeared.

The hernial sac, on the *left* side, was of considerable size, and much thickened; and the inguinal ring greatly dilated. There was no part of the omentum attached to it.

If the details which I have already given of the epiplocele on the *left* side be contrasted, with those which accompanied this disease on the *right*, it is evident, that there was great similarity in the size, and other external characters of the two tumours, and that great resemblance also existed in the progress of the symptoms. During the former attack, the disease advanced more slowly, the local and general symptoms were less urgent, the abdominal inflammation was less extensive, and the suppuration in the sac more complete. The patient was therefore in a more favourable

state for the operation ; but, even in the second attack, although our hopes of success were much less sanguine, still, the increasing urgency of the symptoms ; the fact of the inflammation having commenced in the tumour, and extended to the abdomen ; the total failure of antiphlogistic treatment, both local and general ; the probability, that part of the urgent symptoms might depend on a portion of omentum having recently escaped, and become strangulated, or upon a knuckle of intestine being included ; and the marked success of the operation on the left side, two years and a half ago, induced the majority of the gentlemen present at the consultation, to recommend this step, as the only remaining expedient, which either medicine or surgery afforded. Had the abdominal inflammation not been so extensive, the result might have been more fortunate. The operation did not however aggravate the symptoms, but on the contrary they were, for a short time, so much relieved, as to induce faint hopes of his recovery. The unnatural position of the colon might also have been remedied by the operation, had the state of parts been such, as to have admitted of the adhesions to the ring being destroyed. This however was impossible, and from the state of the patient, and the extent and intimacy of the adhesions, no alternative remained, but to allow the omentum to continue in the wound, and to remove

from it every source of stricture or undue pressure.

I expected to find on dissection, that a portion of omentum was also fixed to the *left* inguinal ring. The absence of this circumstance can only be accounted for, on the supposition, that the suppuration in the sac which detached the great bulk of the irreducible omentum, and enabled me to remove it by the knife, three weeks after the first operation; had in the same way, during the healing of the wound, destroyed the attachments of the omentum to the ring, and allowed it to return into the abdomen; its reappearance at this opening being afterwards prevented by the constant application of a truss.

To A. Copland Hutchison, Esq., &c. &c.