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Illustrations OF HOSPITAL PRACTICE: METROPOLITAN AND PROVINCIAL.

ST. GEORGE'S HOSPITAL.

CASES AND STATISTICS OF STRANGULATED HERNIÆ: WITH REMARKS.

By GEORGE F. COOPER, Esq., Surgical Registrar.

CASE I. M. W., aged 40, was admitted on April 25th, under Mr. Pollock. This patient stated that she ruptured herself for the first time three or four years ago, whilst attempting to raise a heavy weight. She never wore a truss till last December, when she came into this Hospital for symptoms of strangulated hernia; but then, by means of the taxis and a hot bath, the gut was returned, and she was sent out with a truss applied. Three days before admission, whilst in bed, and the truss being off, she had a fit of coughing, and the gut again came down. Since that time till her admission here, the bowels had not acted; she had had slight vomiting, apparently not stercoraceous; and very little pain.

On admission, there was a small hard tumour in the region of the right femoral ring, of about the size of a large walnut, which was red and inflamed, and very slightly painful, as was the abdomen generally. Her tongue was furred, but moist; pulse 90, and weak; and skin cool. Herniotomy was performed directly after admission; and then, on cutting down through the various coverings, which were found rather adherent to one another, a small branch of the epigastric artery was divided, requiring a ligature. The sac was opened, and found to contain a little fluid, of a dark serous nature, and a small knuckle of intestine, the surface of which, to the extent of a square inch, was perfectly white, and surrounded by a dark margin; so a suture was passed through the healthy portion of the gut (one on each side), and attached to a corresponding part of the external wound, and the mortified portion merely snipped with a pair of scissors. No fæces escaped. The stricture, which was found to be very tight, was then divided, and the woman was put to bed. She was ordered one grain of opium every four hours. She slept very little during the night; and, on the following morning, there was great tenderness over the abdomen, and she had some stercoraceous vomiting. Her pulse was 100, and soft; tongue moist, but rather furred; skin cool; and the wound looked quiet. The next day (27th), the vomiting continued, but was more frequent; and the abdomen was acutely painful. No fæces had passed either through the wound or *per rectum*. The pulse was 90, and fluttering. She was given milk diet, and was ordered a simple injection. This was retained for a while, but eventually passed by the wound.

April 28th. She spent a better night. This morning she had another injection, after which some fæces passed through the wound. The vomiting continued, but the tenderness of the abdomen was much less. The wound was quiet, and slightly discharging; pulse 120, and weak.

April 29th. The vomiting had stopped, and the tenderness was gradually going from the abdomen. Fæces now passed freely through the wound. On the following day, she was ordered six ounces of brandy, and was given some fish.

From this time she gradually but slowly rallied; nothing more worthy of note occurred; and she was discharged on June 21st. Her fæces always passed freely through the wound, which latter had very considerably contracted. About

a week after the operation, she passed her motions for a few times by the natural passages; this shortly ceased to be the case, and, for about six weeks before she left the Hospital, nothing was passed by the rectum but a very small amount of fæces and mucus, and that only rarely.

CASE II. M. B., aged 40, was admitted on May 25th, under Mr. Pollock, for strangulated femoral hernia. She had had a hernia for the last three years, and had always worn a truss. Four days and a half ago, the gut again came down during a fit of coughing; and since then, till her admission, her bowels had not acted, and there had been almost incessant vomiting.

On admission, besides the stercoraceous vomiting, there was considerable peritonitis. An operation was immediately performed. The sac was opened, and found to contain a little serum, and a knuckle of intestine, not much congested. She rapidly recovered, without any bad symptoms; and on June 11th, seventeen days after the operation, she left the Hospital.

CASE III. C. R., aged 34, was admitted on August 11th, under Mr. Cutler, for strangulated oblique inguinal hernia. He had had a hernia for the last sixteen or seventeen years, and had always worn a truss; this morning it broke, and, four hours before admission, the gut again descended; and, finding he could not return it as heretofore, he applied here for relief. He was given a hot bath, and taxis was applied, but without avail; and, two hours afterwards, herniotomy took place. The sac was opened, and found to contain a quantity of serum, and a knuckle of intestine the size of two walnuts, exceedingly congested, almost perfectly black. The stricture was very tight. The wound healed by the first intention; and, on the 24th, he left the Hospital.

REMARKS. I put these three cases together, to show how extremely fallacious it is to trust to symptoms, or even time, in operating on strangulated herniæ, as to the propriety of opening the sac or not; for let us briefly analyse these cases, and then it will appear, I think, that if we had made a diagnosis as to the state of the gut in each, we should have been greatly deceived. In the first, the woman had no very urgent symptoms, no great stercoraceous vomiting, peritonitis, or collapse, which would have been expected if mortification of the bowel had come on; and yet the strangulated portion, for the space of a square inch, was perfectly dead. In the second, the patient had had almost incessant vomiting for four days and a half (the length of time the hernia had been down), and, on admission, peritonitis; and yet the gut was not much congested; showing that, howsoever little obstruction there be to the passage of the contents in the alimentary canal, all the symptoms of strangulation show themselves almost as much as if the part had been severely constricted. In the third, when herniotomy took place, the gut had only been strangulated for six hours, and yet it was almost perfectly black. This only shows how little delay there should be in all cases of strangulated herniæ, and how little one can trust to time; for though, in some cases, the stricture is only sufficient to cause at first congestion, which will ultimately (and this may be many days) go on to gangrene of the gut, unless relieved, yet, in others, active inflammation is set up directly, and gangrene rapidly supervenes. It is quite certain that the great secret of success in herniotomy is to take it in time, and that then it is far from being so dangerous an operation as is usually considered. Unfortunately, the greater number of cases that come into our Hospital have been of so long duration, and the taxis has been frequently so rudely applied in attempts at reduction, that the aid an operation affords is too often destroyed by the patient not being able to rally from the extreme collapse he is in; or, if the gut be not gangrenous from delay, it is often severely congested and bruised. Does not common sense tell all of us with what extreme delicacy the taxis should always be used?

And now, as we do unfortunately meet with these cases of long duration, what have we to contend against, in order to re-

lieve the patient, besides the effects of the simple operation? The answer is:—1. Great collapse, from incessant vomiting, and injury to a portion of the bowel; for there is nothing in surgery that causes greater prostration of the vital powers than any injury to the intestinal canal. 2. Prostration from want of nutrition. 3. Effects of remedies, as from violent use of the taxis and administration of purgatives. 4. Peritonitis, as spreading from the portion of bowel or omentum that is strangulated. 5. Ulceration of the bowel, and gangrene.

Out of 12 cases that have been operated upon in our Hospital during this present year, the periods of strangulation before the time of admission were respectively, 4 days, 2 days, 24 hours, 3 days, 4½ days, 27 hours, 5 hours, 3 days, 14 hours, 5 days, 6 hours, and 7 days; making an average of 2 days and 15 hours for each case.

What is far more conclusive is, that during the last seven years, the period of strangulation that had existed in those who died was as follows:—

In 1852: 4 deaths: periods of strangulation respectively, 2 days; 3 days; 2 days; 2 days.

In 1853: 4 deaths: periods of strangulation, 3 days; (?); 10 days; 36 hours.

In 1854: 9 deaths: periods of strangulation, 2 days; 3 days; 8 days; 7 hours; 16 hours; 1 day; 1 day; 2 days; 36 hours.

In 1855: 9 deaths: periods of strangulation, 12 hours; 5 days; 36 hours; 8 days; 5 days; 2 days; symptoms 9 days (operation exploratory); 30 hours; 4 days.

In 1856: 5 deaths: periods of strangulation, 36 hours; 3 days; (?); 3 days; 4 days.

In 1857: 3 deaths: periods of strangulation, 2 days; 2 days; 2 hours.

In 1859: 2 deaths: periods of strangulation, 7 days; 4 days.

This makes an average of 3 days and 2 hours for each case, which is certainly very enormous.

The following table contains the statistics of the cases admitted into St. George's Hospital during the last seven years, showing the success or failure, whichever it may be, in opening the sac, in comparison with that of other hospitals where the sac may have been left unopened.

Date.	No. of cases.	Nature of hernia.	Sac opened.	Sac not opened.	Deaths.
1852 ..	18	Inguinal 7	 7	 0	2(a)
		Femoral 11	 9	 2	2(b)
1853 ..	15	Inguinal 2	 2	 0	0
		Femoral 13	 12	 1	4(c)
1854 ..	23	Inguinal 7	 7	 0	3(d)
		Femoral 16	 16	 0	6(e)
1855 ..	17	Inguinal 4	 4	 0	2(f)
		Femoral 12	 12	 0	6(g)
		Umbilical 1	 1	 0	1(h)
1856 ..	14	Inguinal 3	 3	 0	0
		Femoral 10	 10	 0	5(i)
		Umbilical 1	 1	 0	0
1857* ..	11	Inguinal 2	 2	 0	1(j)
		Femoral 9	 9	 0	2(k)
1858* ..	6	Inguinal 2	 1	 1	0
		Femoral 4	 4	 0	0
		Inguinal 3	 3	 0	0
1859 ..	12	Femoral 8	 8	 0	2(l)
		Umbilical 1	 1	 0	0
		Inguinal 30	 29	 1	8
	116	Femoral 83	 80	 3	27
		Umbilical 3	 3	 0	1

(a) In 1, from bronchitis previously existing, in an infant; in 1, from pleurisy previously existing.

(b) In both the gut was ulcerated and gave way during the operation. Peritonitis in both.

(c) In 1 case, peritonitis previously existed. In 2 cases, the gut was ulcerated, and gave way; in one case during, in the other a few hours after, the operation. In the 4th case, an exploratory operation was performed; the hernial sac was found empty. This was followed, however, by ulceration of a portion of bowel lying near the hernial sac, and the formation of a fecal fistula through the incision. The patient died of exhaustion from large bed-sores.

(d) In 2, from peritonitis; in 1, from exhaustion consequent on sloughing around an artificial anus, the result of ulceration of the gut.

(e) In 1, from cholera; in 2, from peritonitis; in 2, from perforation of the intestine; and 1 was in a moribund state on admission, from neglected strangulation.

(f) In 1, from exhaustion; and in 1 from peritonitis.

(g) In 2, from perforation of the bowel by ulceration before the operation; in 1, from the same complication after the operation; in 1, from gangrene of the bowel, which was laid open at the operation; and in 2, from peritonitis.

(h) An exploratory operation; death from peritonitis existing previously to the operation.

(i) In 1, from internal strangulation, the man having quite recovered from the operation; in 2, from peritonitis; in 1, from pleural effusion; in 1, an exploratory operation was performed, and no strangulation was detected—the cause of death remained obscure.

(j) From rupture of intestine and hernial sac by violent use of taxis before admission.

(k) In 1, from peritonitis; in 1, from bronchitis.

(l) In 1, from secondary hæmorrhage into the abdominal cavity; 1 was moribund on admission and died of pure collapse.

Of the deaths, 6 were from other diseases; viz., 2 from bronchitis, 1 from exhaustion by bed-sores, 1 from cholera, 1 from internal strangulation, and 1 from pleural effusion; while 30 were from the effects of the disease.

The following four cases, which have occurred this year at St. George's Hospital, well illustrate some of the complications and difficulties that are met with in strangulated herniæ.

CASE IV. A. T. was admitted under Mr. Prescott Hewett on January 6th, for strangulated femoral hernia. She had had a hernia on the left side for the last six months, but it could be always easily reduced. She never wore a truss. Four days before admission, she found she could not return it. Sickness soon came on, and continued until she entered the Hospital.

On admission, she was in a state of great collapse, having constant stercoraceous vomiting, acute tenderness over the abdomen, and hernial tumour. An operation was immediately performed. The sac was opened, and found to contain a small knuckle of gut, which was much congested; and a small piece of omentum, which was removed. The stricture was very deep and tight. Directly after the operation, the bowels acted very copiously. She was given twenty minims of tincture of opium.

Jan. 7th. She was a little sick this morning. The tenderness of the abdomen was rather less, though still severe; there was considerable tympanitis. Her tongue was moist; skin cool; and pulse 100, and jerking. The wound looked healthy, and had partially healed. She was given calomel and opium every six hours.

Jan. 8th. She was delirious this morning. Her pulse was 120, and very weak; the tongue was dry; and she was in a very low state. There was more tenderness over the abdomen. The edges of the wound were of a dark colour. The calomel and opium were repeated every three hours, and she was also given brandy and port wine; but towards evening she sank.

AUTOPSY. The peritoneal cavity contained much blood, reaching as high as the small omentum, and coating the various viscera; but the largest quantity was in the pelvis. The gut and omentum that had been strangulated were lying at a distance from the femoral ring, five feet from the ileo-cæcal valve, and were evidently recovering themselves. No vessel could be found wounded, except a very small one, which was given off from a branch of the epigastric artery.

CASE V. A. F., aged 52, was admitted on July 10th, under Mr. Prescott Hewett, for strangulated femoral hernia. She had had a hernia on the left side for the last ten years, for which she had always worn a truss. When it came down, she could never return it herself, always requiring the aid of a medical man; and the reduction gave her much pain. Five years ago, she was in Guy's Hospital for symptoms of strangulation; but the gut was then returned by means of a hot bath and taxis. It had not been down since last November until three hours ago, and directly afterwards sickness came on. Hot baths and taxis were tried, but in vain; so, five hours after the strangulation took place, an operation was performed. The sac was opened, and found to contain nothing but a small knuckle of intestine, not much congested. Directly the stricture was divided (which was the inner portion of Poupart's

* From October 1857 to June 1858, no record of the cases was kept.

ligament), and the gut was returned, a jet of blood took place, which was of such a size that it came evidently from some considerable vessel. Mr. Hewett managed to ligature one end of the artery by simply drawing down the sac of the hernia, by which means it was exposed; but the other end he could not get hold of at all until he had cut through and everted Gimbernat's ligament; and then, just beneath this, he saw the vessel bleeding, which was accordingly secured.

The woman did very well; and on August 17th, thirty-eight days after the operation, she left the Hospital.

CASE VI. E. Y., aged 51, was admitted on August 17th, under Mr. Tatum, for severe constipation and stercoraceous vomiting, she having suffered from the former for the last six days, and the latter for about twenty-four hours. Until the day of her admission, she had applied to no one; but on that day she called on a medical man, who gave her an enema; but the whole of it was directly returned. She stated that she had had a hernia for four or five years past, but had never worn a truss.

On admission, besides the constipation and vomiting, she was in a state of great collapse; had some tenderness over her abdomen, and complained of a tender swelling in the right groin, which was examined, and declared to be an inflamed gland. Nothing could be felt below this: but on account of the extreme urgency of the symptoms, an operation was proposed. She was then quite cold, her pulse could scarcely be felt; in fact she was moribund. Beneath the inflamed gland a small aqueous cyst was found, and still deeper, a small strangulated piece of intestine. The sac was opened and found to contain about half-an-ounce of milky fluid; a knuckle of intestine, the size of a filbert, not very dark in colour, and which became even lighter before returned, and a small piece of omentum, which was adherent to the sac, and was accordingly left there. The woman did not rally at all, and in about half an hour she died. An autopsy showed some peritonitis. There was also a band of lymph encircling three parts of the gut, which was recovering itself, showing the original stricture.

CASE VII. H. M., aged 39, was admitted on July 30th, under Mr. Prescott Hewett, for strangulated umbilical hernia. She stated that seven or eight years ago, whilst pulling a box from beneath a bed, she ruptured herself in the umbilical region. Since which time she has always worn a bandage to support the hernia, but it never returned into the cavity of the abdomen. It never gave her any inconvenience till one month ago, when she felt some pain in the tumour, and since then it had gradually increased in size: it had also been getting painful, and was harder to the touch. On admission, she said she was four months advanced in pregnancy; she had had two children since she had been ruptured, but they had never affected the hernia in any way. Her bowels had not acted for five days, and since then she had been frequently sick. An operation was performed directly. On dividing the stricture, which consisted of a large piece of omentum encircling a small knuckle of the transverse colon, a vessel, the size of a crow-quill, was divided. The divided ends were so situated, that there was some considerable difficulty in securing them, for one was attached to the omentum, whilst the other was lying on the surface of the gut, thereby it being very difficult to take up the latter, without injury to the bowel. A little sloughing of the integuments followed the operation, and slight peritonitis; but she soon recovered from these, and on August 30th, left the Hospital.

REMARKS. These four cases speak plainly enough for themselves, and therefore do not require much comment.

The first case I believe to be rare, namely, fatal secondary hæmorrhage after herniotomy; for out of the one hundred and sixteen cases I have mentioned above, this is the only one of the kind; but yet the fact of the hæmorrhage coming from a small vessel, and not the epigastric artery itself, does not seem the exception; for Mr. Lawrence, in his treatise on *Ruptures*, says, "The occurrence of hæmorrhage, even to a considerable amount after the operation, is by no means a certain proof that the epigastric artery has been wounded; and thus large bleeding may occur, when examination after death does not detect a wound of any considerable vessel."

The second and fourth cases are interesting on account of the difficulty there was in securing the divided ends of the vessels; and the third, on account of the great difficulty there was in diagnosis.

UNIVERSITY COLLEGE HOSPITAL.

I. WOUND OF THE EYE.

Under the care of J. ERICHSEN, Esq.

JOHN S., aged 25, a costermonger, was admitted at one o'clock in the morning of September 8th, under the care of Mr. Erichsen, on account of a stab in the orbit from a clasp-knife. He was in a state of stupid intoxication at the time, and was quite unconscious during examination. The knife had penetrated the lower eyelid at its outer angle, and passed for one inch and a half between the eyeball and the wall of the orbit, wounding the conjunctiva, and bruising the eyeball. The pupils were observed to contract and dilate equally under the stimulus of light; but that of the injured eye was partly closed by a clot of blood. A purge was given, and the wound strapped.

At 10 A.M., the eyelid was found much swollen, and the whole of the conjunctiva of a dark purple red, from extravasation. But little pain was experienced, and that not referred to the eyebrow. The patient could see as distinctly with the injured eye, when the lids were held open, as with the sound one. The clot above mentioned had fallen down, and lay in front of the iris. The bowels had acted freely. He was ordered to bathe the eye frequently, and to have rather sparing diet.

Sept. 9th. The iris was of a somewhat dirty tinge; the pupil was dilated; and there was considerable pain over the brow. The chemosis was less, and the extravasated blood was being rapidly absorbed. The wound in the eyelid was healing by first intention. The clot of blood in the anterior chamber had disappeared, and the cornea was quite clear. Vision was somewhat misty. He was ordered to take a grain and a half of calomel, and two of Dover's powder, three times a day; with low diet, and frequent bathing of the eye with tepid water.

Sept. 10th. The pain remained about the same. The pupil was much dilated, and its margins were ragged with effused lymph. He was ordered to take the pill every four hours.

Sept. 11th. The breath had acquired the mercurial fætor, though the gums were not tender. Some of the lymph had disappeared. He was ordered to continue the same regimen, and take the pills three times a day.

Sept. 12th. The gums were tender. The lymph was disappearing. The iris was resuming its natural colour. The pain was gone.

Sept. 13th. He complained of soreness of the gums and salivary glands. The conjunctiva being somewhat congested, he was ordered a lotion of sulphate of zinc and opium wine in water. He was ordered to take the pill once a day.

Sept. 15th. The lymph had entirely disappeared, except a small mass at the lower border of the pupil, of a pinkish colour. He was ordered extra diet.

Sept. 19th. The eye was restored to its natural condition, except that the pupil was dilated. A small abscess had been opened in the eyelid.

Sept. 22nd. He was discharged cured; the wound being healed, and the eye perfectly natural, except some dilatation of the pupil.

REMARKS. We quote the above case merely as a well marked instance of a traumatic affection of the iris, produced by violence done, not to the membrane itself, but to the outer tissues of the globe and orbit; and of the great power of mercury in cutting short such an affection. In fact, as a great medical author somewhere observes, to watch a case of traumatic iritis treated by mercury is a sufficient cure for any one afflicted with the prevailing scepticism of the day as to the powers of that drug in arresting inflammation. Such cases may suggest to us a question whether the antiphlogistic plan is not in danger of falling too entirely into neglect in the after treatment of operations on the eye; but we must not pursue this topic at present.

II. SYME'S OPERATION.

Under the care of JOHN MARSHALL, Esq.

We had an opportunity, a few days since, of witnessing the employment by Mr. Marshall of the modification of Syme's staff for the division of the stricture, invented by him, and described in the *JOURNAL* for 1858, p. 358, to which we refer for a detailed description of the instrument. Its essential feature is, that it combines both catheter and staff; so that no necessity arises for withdrawing it and passing anything again through the wounded urethra into the bladder, which it is often found very difficult to do. It seemed to answer extremely well; and the operation was effected very rapidly, and