

finger and the adjacent side of the ring-finger suffer, perhaps in some degree the inner side of the thumb; if the median nerve, the thumb and other fingers; if the radial, the back of the hand, next the thumb. In some instances there seems to be a kind of collateral communication, by which a degree of sensibility is after a time recovered.

34. If any foreign substance should lodge in, and continue to irritate the nerve, the wounded part often becomes so extremely painful as not to be borne. The nerve at that part forms a tumour of a most painful character, requiring removal, or in extreme cases even the amputation of the extremity.

35. After an ordinary amputation, the extremity of a nerve enlarges so as to resemble a leek, and if this should adhere to the cicatrix of the wound, painful symptoms, referred to the toes and other parts of the removed leg, are experienced often to an almost unbearable degree, when it must be treated in a similar manner to obtain relief. The pain apparently felt in and referred to the toes is merely the effect of irritation of the extremity of the nerve.

36. Wounds or injuries of nerves, which do not entirely divide the trunk or a principal branch given off from a plexus of nerves, may give rise to general as well as local symptoms—that is, by sympathy, connexion, or continuity of disease, other nerves and organs of the body are affected. This applies also to the spinal marrow, when the injury does not destroy at once. General Sir James Kempt was wounded at the storming of the castle of Badajos, on the inside of the left great toe, by a musket-ball, which from the appearance of a slit-like opening was supposed to have rebounded from the bone, but was discovered a fortnight afterwards, flattened and lying between this and the next toe. Inflammation had ensued, followed by great irritability and numerous spasmodic attacks, appearing to render locked-jaw probable. The spasms soon became more general, extending from the foot to the head, but tetanus did not take place; on his return to England, they gradually subsided, but he did not sleep at night for a year. After the battle of Waterloo the spasms became more frequent and troublesome, attacking the muscles at the back of the neck and throat, causing considerable anxiety. The attack was often traced to exposing the foot to cold or to undue pressure, and frequently to derangement of stomach, although he was most regular in diet. After the lapse of six or seven years these severe symptoms subsided, but he now, at the end of forty years, suffers occasionally from them.

Admiral Sir Philip Broke received a cut with a sword on boarding the *Chesapeake*, on the left side of the back of the head, which went through his skull, rendering the brain visible, which wound healed in six months, although splinters of bone came away for a year. A second cut on the right side did not penetrate the bone. After a temporary paralysis of the right side, he recovered with a loss of power and a disordered sensation in the second, third, and little fingers of the right hand, aggravated by cold weather and by mental anxiety.

Seven years afterwards he fell from his horse and suffered from concussion of the brain, which added to his former sensations, by rendering the left half of his whole person incapable of resisting cold, or of evolving heat. In a still atmosphere abroad, at 68° Fahr., he said, the left side requires four coatings of stout flannel, which are augmented as the thermometer descends every two degrees and a half, to prevent a painful sense of cold; so that when it stands at the freezing point the quantity of clothing on the affected side becomes extremely burdensome. When exposed to a breeze, or even in moving against the air, one or even two oilskin coverings are necessary in addition, to prevent a sensation of piercing cold driving through the whole frame.

Moderate horse exercise and generous diet improved the general health; the warm-bath caused a distressed effect; the shower-bath, cold or tepid, increased the paralytic affection. Frictions with remedies of all kinds increased it also, and so did sponging with vinegar-and-water, as well as any violent stimulating quick excitement, or earnest attention to any particular subject. The admiral died unrelieved, twenty-six years after the receipt of the injury, of disease of the bladder.

37. Brigade-Major Bissett was wounded, on horseback, in the Kaffir war, by a musket-ball, which entered on the outside of the lower part of the left thigh, passed upwards across the perinæum, wounding the rectum within the anus—from which part he lost a quantity of blood—and came out through the pelvis on the opposite side. The course of this ball was accounted for by the fact that he saw the Kaffir who shot him standing some yards below him when he fired. The ball, in its passage upwards and across the thigh, injured the great sciatic nerve, and the consequence is continued pain in the toes, instep, and foot, with contraction of

the muscles, and lameness, together with the usual incapability of bearing heat or cold, particularly the latter, against which he is peculiarly obliged to guard. The skin shows no sign of discoloration or derangement. Position gives the explanation why the ball took such a peculiar course; the symptoms show the nature of the injury. From other effects he has perfectly recovered, but his leg is comparatively as useless to him as an artificial one, whilst it is a constant source of suffering, sometimes aggravated to that of misery.

38. The cases related elsewhere, of mortification taking place in the foot and leg, after the division of the principal artery in the thigh, show that the maintenance of the life of a part depends on the blood. The cases now related show that neither an injury nor the division of the principal nerve, nor, perhaps, all the nerves going to a part, will destroy that life. The complete failure of the circulation in a part such as the foot, impairs, but does not totally destroy, the sensibility imparted by the nerves, until some hours—nay, days—after the loss of life has taken place, nor until decomposition is about to occur. An injury then to the nerve causes great pain in the parts supplied by it; some loss of the power of motion, some deprivation of its ordinary sensibility, as shown by a feeling of numbness; and an incapability, to a certain extent, of resisting heat or cold. When all the nerves are divided, the power of moving the limb is lost, as well as its sensibility in a general sense. The temperature remains at a natural standard under ordinary circumstances, but no extra evolution of heat can take place by which cold is resisted, nor any absorption of it which perhaps renders the application of a high temperature, particularly when combined with moisture, harmless. The circulation is capable of maintaining the ordinary heat of a part although it is deprived of the influence of the special nerves of sensation and of motion, but a greater evolution of heat appears to depend on something communicated by the nerves in a state of integrity. In the case of Sir P. Broke, this something appeared to be derived from the brain, on which part the wound was inflicted, and the transmission of which was interrupted by the injury. The evolution of animal heat has of late been supposed to be dependent on electricity, from the resemblance which exists between it and the nervous power, although the attempts to identify them have not been successful. That the evolution of heat is the result of nervous power, appears to be indisputable; in what that power consists, physiologists have yet to ascertain.

39. The best means of mitigating the pain, independently of the application of heat—and cold rarely does good, which the sufferer soon finds out—is by the application of stimulants to the whole of the extremity affected, followed by narcotics. The tinctures of iodine and lyttæ, the oleum terebinthæ, the oleum tigllii, the liquor ammoniæ or the veratria, in the form of an embrocation, of such strength as will cause a good deal of irritation on the skin, short, however, of producing any serious eruption. After the parts have been well rubbed, opium, belladonna, or henbane should be applied in the form of ointment; or the tinctures of opium, henbane, or aconite may in turn be applied on linen. Great advantage has been derived in many neuralgic pains from the application of *aconitine* carefully prepared, in the proportion of one grain to a drachm of lard, at which strength it will sometimes irritate almost to vesication, as well as allay pain.

When the pains return from exposure to cold, particularly in the lower extremity, great advantage has been derived from cupping on the loins, from purgatives, opiates, and the warm bath. Benefit has been obtained occasionally from quinine, belladonna, aconite, and stramonium, administered internally.

ON A CASE OF CONGENITAL STRANGULATED INGUINAL HERNIA.

OPERATION; ARTIFICIAL ANUS; DEATH: WITH REMARKS.

By HENRY BULLOCK, Esq.,

RESIDENT SURGEON TO ST. MARY'S HOSPITAL.

J. S—, aged thirty-eight, married, a tobacco-pipe maker, was admitted into St. Mary's Hospital, under Mr. Coulson, at ten A.M. on the 6th November, 1851. He stated that ever since a boy he had had a rupture in the right groin, which had always been reducible. He had worn a truss, which he was in the habit of leaving off during the night, up to about ten days ago, when, owing to the spring having broken, he left it off for about two hours, during which time he was walking about; soon after this he complained of pain in the groin

which extended to the loins. The rupture, he said, had not come down. At two A.M. on the 4th of November the bowel came down, and could not be returned, since which, up to the time of his admission, he had suffered great pain, not being able to sleep; the bowels had not acted since the morning previous to the coming down of the bowel. From this time everything he took had made him sick, and on that morning the sickness had increased; he vomited without taking anything into his stomach, and the vomited matter had become stercoraceous; he had also had hiccup since the 4th, which had increased up to the 6th. On the 5th a surgeon had tried to reduce the bowel, but without success, and subsequently applied six leeches. On his admission, which he had delayed as long as possible, there was a tumour on the right side of his scrotum, somewhat soft and elastic, and tender to the touch, extending up the inguinal canal; the scrotum was red; a very slight impulse on coughing could be detected. The abdomen was rather distended, but not very tympanitic; he complained of pain in the epigastric region, which was increased by pressure; there was more pain and tenderness below and to the right of the umbilicus. His countenance was rather anxious; he complained much of thirst; his tongue was coated with a dry, brown fur; pulse 86, small, and rather hard; face flushed; skin hot. At twenty-five minutes past ten, he was placed in a hot bath until he felt rather faint, when the taxis was gently applied for a few minutes; some flatus apparently passed into the abdomen, but the intestine could not be returned. Just before the bath he vomited about three-quarters of a pint of brownish fluid of a very unpleasant odour. At half-past eleven a bag of ice was applied to the tumour, and at half-past two P.M. Mr. Coulson performed the operation. On reaching the sac, it was found to be distended with fluid, and on puncturing it a large quantity of dark-coloured liquid spurted out. The sac was found to be composed of the tunica vaginalis, and contained a knuckle of what appeared to be small intestine, of a very dark colour, having however nearly a uniform hue; the stricture, which was very hard and resisting, and formed by the conjoined tendons of the transversalis and internal oblique, was easily divided, and the intestine carefully returned, the testicle and cord being then exposed. The edges of the wound were brought together by sutures, except at the lower part, which was left open, to allow any matters which might otherwise collect to escape; a pad of lint was placed over the wound, and the patient was put to bed with the thighs flexed on the pelvis; and ordered a grain of opium directly, to be repeated every four hours, and to take nothing but a little bland fluid. The operation was performed whilst he was under the influence of chloroform. Quarter-past four P.M.: He felt easy, and there had been no bleeding; there was a little smarting about the wound; no tenderness of the abdomen; the feet had been rather cold; the tongue was moister, and not so brown as before the operation; the pulse was 89, rather fuller than before; the skin nearly cool. At half-past seven P.M. the pulse was 100, and harder; the tongue moist; he had pain and tenderness of the abdomen on pressure being made, especially on the right side below the umbilicus. He was ordered twelve leeches, and two grains of calomel and a grain of opium every four hours. At half-past nine he vomited about a pint and a half of brown-coloured fluid, not having, however, a distinctly faecal odour. At twelve P.M. the pulse was still 100, but softer, the tenderness had diminished, and he had had a little sleep.

7th.—Quarter-past ten A.M.: He had slept several times during the night, for two or three hours at a time, and expressed himself better; the skin was rather hot; the tongue still brown; the pulse 104, rather less compressible; there was some little tenderness on making firm pressure below the umbilicus on both sides; the abdomen was somewhat tympanitic. Ordered, calomel three grains, with opium quarter of a grain, every three hours. Beef-tea, one pint.—At ten P.M., the bowels had just acted after one or two attempts; the motion was small, and very fluid; the pulse was 110, skin cool, and the tenderness much the same.

On the 8th, the pulse was 100, the skin cool, and there was less pain and tenderness; the wound was looking healthy, and a great part of it appeared to be healing by the first intention; he had been sick once early in the morning. To take his pill every six hours.—At twelve P.M., he had been twice sick since the morning, but the vomited matter was less offensive; the pulse was quiet, and the tongue cleaning; there had been no further action of the bowels.

9th.—He had dozed during the night; the pulse was 98; the skin cool; tongue furred, but not so dark and moist; abdomen still tympanitic; he had been sick once in the night, and the bowels had not acted; the vomited matter was of a dark-green

colour; there was a thin, dark-coloured fluid oozing from the lower part of the wound; the upper part was healing; there was still very slight tenderness of the abdomen on making firm pressure; he said that he felt faint.—Ten P.M.: Had passed a copious healthy motion per anum; had been sick once during the morning; pulse was 86, soft; skin moist; complained of sore-throat. To continue the pill night and morning only.

10th.—He had been once sick during the night; had passed another (fluid) motion; the pulse was 86; the tongue cleaner. The sutures were removed from the wound, which still had the same character of discharge oozing from it. Ordered, three grains of mercury-with-chalk, with five grains of Dover's powder, and some arrowroot.

On the 11th, he was free from pain, and the bowels were open; the pulse 80, soft.

12th.—In the night, some faecal matter began to pass through the wound, the quantity increasing in the morning; pulse 84; tongue rather brown; no tenderness of abdomen. Ordered, beef-tea a pint and a half.

On the 14th, rather less faecal matter passed through the wound; pulse was 84; the tongue cleaner; he had no pain; slept well; and had good appetite. Ordered an egg, boiled soft.

On the 15th, a large quantity of faecal matter, very fluid, passed through constantly. Ordered, ten minims of tincture of opium every four hours; two eggs, and two ounces of port wine.

18th.—The bowels were still in the same relaxed state; the pulse was weak. Ordered, half a drachm of tincture of catechu, ten minims of tincture of opium, and one ounce of chalk mixture, every four hours.

19th.—The bowels were rather less relaxed; he was very weak, with feeble pulse. To take the mixture every three hours, with the addition of half a drachm more of tincture of catechu; a mutton-chop, four ounces of port-wine, and simple diet.

20th.—The diarrhoea had been better for a time, but was now again increased. Ordered ten grains of compound pulverized kino, every three hours.—At ten P.M., he suddenly became collapsed, and died in about a quarter of an hour.

Post-mortem examination forty-two hours after death.—The body was thin but well formed; the abdomen was somewhat tympanitic; there was a wound in the right inguinal region, about three inches long, extending from about the external abdominal ring down the scrotum; it contained and was discoloured by faecal matter. The lungs were healthy; the heart was rather large and flabby, all its cavities containing dark-coloured blood in clots. The liver and kidneys were healthy. There was central contraction of the stomach. The intestines were more or less coated with recent lymph; the descending colon was connected by recent adhesions to the anterior wall of the abdomen; the adhesions were very easily broken down. The small intestines contained a considerable quantity of gas; their vessels were much injected, causing a dark-red appearance; the convolutions of the ilium were agglutinated together by adhesive matter. The portion of intestine which had been strangulated had apparently, after its return, become adherent to the edges of the wound, and outside of it other convolutions had become adherent to the anterior abdominal wall. The whole of the strangulated part had become sphacelated and separated from the rest of the intestine; a portion had remained adherent to the edges of the wound, having an aperture in it through which the faecal matter was discharged into the wound; its cavity was also laid open, communicating with a cavity into which opened the two mouths of the intestine from which the dead part had been separated, one belonging to the portion of intestine above, and the other to the portion below, the seat of strangulation. This cavity was formed by the agglutinated convolutions and adhesive matter, and contained a portion of sphacelated intestine which was connected slightly with the mesentery only; there was an aperture below, through which the faecal matter had escaped into the pelvis, and which was connected more especially with another opening in the intestine, above the strangulated part. The neck of the sac, and part of the conjoint tendon of the transversalis and internal oblique, had apparently been divided by the knife; the neck of the sac did not appear to have been much thickened. The cord and tunica vaginalis testis were coated with semi-purulent lymph.

Remarks.—The points which appear to me of greatest interest in this case are—1. The fact of its being congenital, the sac being in this case formed by the tunica vaginalis, and not, as is usually the case, by a fresh protrusion of peritonæum;

this, however, is not of much importance as regards the operation, but as an after consideration, for this reason, that after the operation, the cavity of the tunica vaginalis being laid open, there is a chance of the aperture leading to the abdomen being filled up with granulations, and the hernia radically cured. For this important fact I am indebted to Mr. Haynes Walton, who has kindly furnished me with the leading facts of the following case in support of it.

In 1847, he was called to operate on a publican, aged seventy, for strangulated congenital inguinal hernia. At the age of fifteen, the hernia first obliged the wearing of a truss; several times during his life there had been strangulation, and the taxis had been successful. The operation was performed twelve hours after the commencement of the symptoms of strangulation; small intestine alone had come down; there was stricture at both rings; extensive suppuration ensued, and the spermatic cord, which was exposed for several inches, granulated, and coalesced with the healing surfaces of the surrounding parts, and completely closed up the abdominal aperture. A truss was never worn afterwards. The last time Mr. Walton saw the patient, three years after, with Mr. Hutchinson, of Farringdon-street, he was well, and had not the least uneasiness from his former complaint. When the communication between the abdomen and the tunica vaginalis is not obliterated, a hernia may occur without the abdominal ring being abnormally large, or the muscles lax; consequently, by judicious treatment, there is, I think, a greater chance of a congenital hernia being radically cured by the constant pressure of a truss, than any other form of hernia. In the case before us, a large quantity of fluid escaped when the sac was opened; this again is a circumstance demanding our attention: it may give rise to difficulty of diagnosis and embarrassment during the performance of the operation. In this case, however, the symptoms were so well marked, that no doubt could be entertained; but it accounted for the impulse on coughing, and the comparative softness and elasticity. The sac, when distended with fluid, at first sight gives the idea that one is looking on the gut itself. Closer examination will soon correct this. I am inclined to think, that in cases of congenital strangulated hernia, a larger quantity of fluid is generally found in the sac than in hernia not congenital. My experience, however, has not been sufficiently extensive for me to state it as a fact. In congenital hernia, too, the intestine is often adherent to the testicle, requiring delicate manipulation.

2ndly.—The artificial anus, together with the state of the gut at the time of the operation. In spite of the various rules laid down in books, to enable us to determine the state of the intestine when the sac has been laid open, it is very difficult, in many cases, to do so; and it is much better, in cases where any doubt exists, to return the gut into the abdomen, rather than subject it to various manipulations in order to ascertain its precise condition. In the case before us the intestine was of a uniform black colour, not having the mottled appearance usually said to be characteristic of gangrene; neither did it give way under the fingers: so that it was returned into the abdomen with the hope, though not without considerable doubt, that it might recover itself. This it did not do, having reached a state which rendered it unable to recover, if gangrene had not actually commenced; though the time that elapsed before an artificial anus formed, proved that the return of the gut had been correct, and that there was a chance of its recovering.

3rdly.—The flabby state of the heart is, I think, a point of great interest, being a clue to the state the gut was in at the time of the operation; it is nothing more than we should expect, that in a person with enfeebled circulation from diseased heart or other cause, gangrene should more speedily take place than in a person with a vigorous and healthy circulation; and even if the intestine had not quite reached that point previous to its return, it is an additional reason for its becoming so, and not recovering afterwards; thus being an undoubted argument in favour of early operation.

And lastly, the question of giving calomel. If given alone it would undoubtedly be injurious, being irritant in its action on the intestines; but I think, combined with opium, and not given for too long a period, its irritant action does not take place, and we have the constitutional effects alone. In this case there were no symptoms of irritation, and it apparently allayed the peritonitis. If it is injurious in these cases, it is from its lowering a system already enfeebled by the constitutional effect of the strangulation. Still, had it not been given in this case, it is most likely that the patient would have succumbed to the peritonæal inflammation.

Feb. 1852.

ON A CASE OF PLACENTA PRÆVIA.

By JOHN T. WALLER, Esq., M.R.C.S. Eng.

On the evening of the 18th December, 1851, about five o'clock, I was sent for to a Mrs. G—, of the parish of R—, aged forty-nine, about three miles from my house. When I went up stairs, I found her lying on the bed, with little or no pain, flooding having been going on some time. I immediately made an examination; found the os uteri well dilated, with placental presentation; and when contraction did occur, which was very slight, the hæmorrhage was fearful. In these trying circumstances, the remarks of your correspondents came to my mind. I gave the patient directly half an ounce of the tincture of ergot of rye, passed my hand into the os uteri, intending, if possible, to go through the placenta, but found that a very difficult affair. I continued my efforts for about a quarter of an hour, and it is just possible I might have got my hand through, but when I was making an extra effort, I felt one edge of the placenta becoming detached from the uterus. I then passed my hand up along the wall of the uterus, turned the fœtus, and in bringing down the legs through the os uteri, the placenta came also, and the labour finished in about an hour from the time I saw her. The child of course was dead. Mrs. R— did as well as usual. Her eldest child is about twenty. She then went eight years to her next child, had three in quick succession, and when I attended the present case, had not been pregnant for seven years.

Flegg Burgh, Norfolk, Feb. 1852.

A CASE OF TÆNIA TREATED BY MALE-FERN OIL.

By ROBERT MOLLOY, Esq., M.R.C.S.

A. W., an iron-moulder by trade, living in Lambeth, had long been troubled with tape-worm; for the last three or four months, indeed, the symptoms had become so annoying, that he was frequently compelled to leave off work for a time, to remove the joints from the anus, as well as those which had accumulated in his trousers. On the 5th ult., I directed him to take, on retiring to bed, a powder composed of four grains of calomel and two of ipecacuanha, together with a strong draught of concentrated compound aloes decoction; at six o'clock on the following morning, he had a drachm of fern-oil, obtained from Morson's. By the action of the draught and powder, a copious evacuation took place at four A.M., bringing away a large quantity of joints and other debris of the worm, and at twelve at noon, just six hours after taking the oil, the whole of the worm was expelled. It measured more than two yards in length, was very perfect, and had twisted itself into two knots; the first eight inches below the head was remarkably complicated, and cost me some time and patience to unravel; the second eighteen inches lower down presented nothing peculiar. The interest of this case is materially increased by the fact that this patient's wife was greatly afflicted with tape-worm, about seven years ago, and one of the children has now anomalous symptoms which are probably referable to this cause. I have long had a suspicion that tape-worm is more common on the other side of the river than it is here, and certainly much may be due to the impure state of the drinking water, which is greatly complained of. If some of your numerous correspondents who are thoroughly conversant with that district and its diseases, would communicate the result of their experience on this subject, through THE LANCET, they would confer a great obligation upon myself, and, I believe, on the profession generally.

Amwell-street, Feb. 1852.

MORTALITY IN THE LONDON HOSPITALS.—In the annual table published by the Registrar-General, of the deaths in the metropolitan district, the following is given as the

Annual Mortality Per Cent. of the Average Number of Inmates of the Different Metropolitan Hospitals.

University College	...	...	...	134.88
King's College	...	...	...	113.21
St. George's	...	...	...	92.73
Westminster	...	...	...	90.84
Guy's	...	...	...	89.26
Bartholomew's	...	...	...	85.06
London	...	...	...	83.77
Charing-cross	...	...	...	79.00
Royal Free	...	...	...	70.18
Middlesex	...	...	...	67.84
St. Thomas's	...	...	...	53.01