

his legs were equally affected; but once this morning he fancied he could move his right great toe. He could not do so now in the least. Nothing definite was discovered yesterday as to fracture of the vertebrae; but there was believed to be one in the mid-dorsal region. Yesterday, after the accident, he was in much collapse, and stimulants were given. He was now well rallied. He had spat a thick viscid mucus, stained with blood. There was much large crepitation in the right lung in front. It was, of course, not practicable to examine posteriorly.

The subject of the above notes died on the day following the last—i. e., about thirty-six hours after the accident. An autopsy could not be obtained.

Original Communications.

CASE OF STRANGULATED INGUINAL HERNIA: DIAGNOSIS OBSCURE: OPERATION: ENLARGED GLAND: RECOVERY.

By E. GARRAWAY, Esq., Faversham.

[Read before the East Kent and Canterbury Medical Society.]

THE subject of this case, a pale man of about 60 years of age, after taking an unusually long walk, was seized with colicky pains in the abdomen. He had an uncomfortable night, and the next morning there was some tendency to sickness, together with an absence of the usual action of the bowels. The pains continuing, accompanied by vomiting, medical advice was sought; and my partner, Mr. Giraud, saw the patient in the middle of the day. The only complaint made was of pain about the umbilicus, some tenderness in the epigastrium, and occasional sickness.

An inguinal hernia had existed on the left side for two or three years; the ring was very large, permitting the bowel to slip in and out with the greatest freedom; it was not now down, but coughing readily occasioned its descent, and the slightest pressure sufficed for its return. It was, therefore, tolerably clear that the present symptoms were in no way connected with this old rupture. A little calomel and opium was ordered, to be followed by some colocynth pills, until the bowels acted, and a warm fomentation to be applied to the abdomen.

In the evening, the symptoms continuing unabated, a more minute examination of the inguinal regions was made, and a very small tumour was discovered in the right groin, possessing all the characteristics of an enlarged gland. An injection was now administered, which brought away a tolerable amount of feculent material, and the colocynth pills were directed to be continued. The next morning, the patient came under my own observation. He was then vomiting freely, looking a little pinched, and complaining of much pain and tenderness, mainly referable to the epigastric region. The bowels had not acted. The tumour in the right groin was again subjected to careful manipulation; it was of about the size of a nut, very moveable, glided freely under the fingers, and could almost be detached and isolated; it was not in the least degree tender; it received no impulse from coughing, and, under continued pressure, it gradually disappeared, only, however, to return as soon as the pressure was removed.

The case was anything but clear. Here was a man, evidently suffering from stricture of some part of the intestinal canal; but what part? He himself pointed to the transverse colon as the seat of mischief, and assured us that the little swelling in the groin had nothing whatever to do with the complaint. Such assurance, of course, carried no weight, but our diagnosis was not what diagnosis ought to be. A croton oil injection was now given, and

a grain of opium directed to be taken every hour. Belladonna was freely applied over the tumour and surrounding parts, at the suggestion of our colleague Mr. Hoare; and in consultation with him, it was resolved that, should the symptoms continue for six hours, the good old rule, "where in doubt, operate," should be forthwith acted upon. At the end of this period, no improvement had taken place; the contents of the small intestines were being thrown up; the patient was looking anxious, there was occasional hiccough; the pain and tenderness were still referred to a point above the umbilicus; the inguinal swelling remained the same; it could be freely handled without pain, and, under sustained pressure, appeared to become imbedded in the fat and cellular tissue by which it was surrounded, always, however, reassuming its original position when the pressure was removed. I proceeded to the operation, not without misgiving as to its utility.

On making the usual incisions, the tumour was soon reached, and its envelopes being carefully divided, an irregularly enlarged gland was revealed. This was unsatisfactory enough. It was thought well to explore more deeply in the direction of the external ring; and, on penetrating a quantity of fat and loose cellular tissue, the finger at length rested upon a small, tense, and elastic swelling, not larger or more prominent than a common nut, and which there could be no hesitation in declaring the sac of a hernia. A small opening was made in it and a director inserted; there was some difficulty in passing this through the ring, the stricture was so firm. The stricture was divided, and the gut readily returned. The constricted intestine was so deeply situated, and the surrounding structures so loaded with fat, that it was impossible to see its condition without enlarging the external incisions. This was not considered expedient, since, from the short time the bowel had been down, its integrity could not, in any degree, have been compromised. Within three hours after the operation, two free evacuations occurred, and the patient went on afterwards uninterruptedly well.

The peculiarly interesting features of this case, and which remove it somewhat out of the category of everyday operations, consisted:—

1. In the total absence of pain or tenderness at the seat of the hernial protrusion. We know very well that in strangulated hernia, pain is largely referred to the vicinity of the umbilicus, but then it is conjoined with a certain amount of discomfort—at least, in the groin; but here there was nothing of the sort, the pain and tenderness, causing the patient to shrink under slight pressure, were wholly in the upper part of the abdomen, and most marked in the epigastric region.

2. In the existence of the enlarged gland, in some sort providential interposition; for certainly without its presence, I believe few surgeons would have possessed the *tactus eruditus* in so eminent a degree as to have detected a hernia so small and so deeply seated. One can conceive, moreover, the possibility of a surgeon satisfying himself with the discovery that the suspicious tumour was a gland, closing the wound, and leaving the patient to his inevitable fate.

3. In the existence of rupture on the opposite side; which, although so readily reducible, just involved the possibility of strangulation by the neck of its own sac, and so tended to add to the doubts and difficulties by which the surgeon was beset.

In conclusion, I may say that my own diagnosis, partly right and partly wrong, was, that the symptoms were in no way dependent upon the tumour which I was about to cut down upon, and which I considered, as the event proved, an enlarged gland; but that my patient was suffering either from intussusception, or constriction, probably of the transverse colon, and that this stricture was occasioned by fibrinous bands, the result of past chronic inflammatory action, which we not unfrequently

see tying together convulsions, and diminishing here and there the calibre of the bowel to a considerable and sometimes fatal extent. Happy was it that an operation with so distrustful a beginning should have so successful and so satisfactory an ending.

CASE OF FRACTURE OF THE SPINE: DEATH ON FIFTEENTH DAY.

By PAUL BELCHER, Esq., Burton-on-Trent.

ON September 4th, I was sent for in a hurry to see W. W., who had fallen from a cart, and was said to be dying. A powerful, muscular man was lying upon a couch. His skin was cold and clammy; his heart's action very irregular and weak. He was very pale. He was intoxicated, and talked in the "slipshod" speech of the drunken. He was quite sensible, and complained of intense pain from the occiput down between the shoulders to about the fourth dorsal vertebra. There was swelling to about the same extent, and it was impossible to trace the spine clearly. Upon carefully raising him to undress him, he screamed out, and begged us to support his chin; for, if that dropped, he could not breathe. He had had an involuntary action of the bowels. There was priapism. There was a slight and unimportant cut and bruise at the vertex, over the left parietal bone. The legs were completely paralysed as to motion; nor could reflex action be excited by tickling the soles or any such means. The abdomen moved to a small extent during respiration, but it seemed a *passive* movement; the abdominal walls were distended by the down-pressed viscera, and, when this tension was taken off, they merely collapsed again. The lower ribs, corresponding to the insertion of the diaphragm, moved somewhat as in asthmatic breathing. Above this point, the chest-walls were completely motionless. The arms retained the power of motion freely; but the fingers were paralysed and flexed, and the movements of the wrist were extremely weak. The head and neck moved freely when supported by the pillow; but he said he could not *lift* the head. Sensation in the trunk and upper and lower extremities was greatly and evenly reduced, though not quite lost. He could just feel a sharp pinch, but could not distinguish *two* points of the compasses, however forcibly applied, and however wide apart.

He was a strong man, aged 37, a sawyer; he was married, and had a family.

It appeared from the story of the man who was with him in the cart (and who said he was sober, though they had both drunk freely of ale), that W. W. was preparing to get out of the cart, and had a child in his arms. He stood for a few seconds on the front board of the cart, and suddenly fell forwards, heels over head, and struck the ground first with the vertex. He was stunned and quite insensible, lying on his back. His friend got assistance, and lifted him "like a corpse" into the cart. He did not regain consciousness until he reached home—a distance of about a mile. The cart was standing still at the time of the accident. The child was not hurt.

He was carefully placed in bed, supported by pillows and sandbags, and ordered perfect rest on his back. A mixture of forty grains of carbonate of ammonia, a drachm and a half of chloric ether, and camphor mixture, was prescribed; and he was ordered to take a sixth part every two hours.

Sept. 5th, 9 A.M. The symptoms of collapse and drunkenness were gone. Pulse 70, weak, jerking, regular. The heart's action was weak, the impulse abrupt. Respiration appeared to be carried on easily; but there was no improvement in the muscular power, nor in sensation. He had passed no urine. Upon passing the hand firmly up and down the spine, a crepitus was felt, rather diffused, over the first and second dorsal vertebrae.

4 P.M. He had had a severe struggle for breath, caused by a little accumulation of mucus. The heart's action was irregular; the tongue furred and dry. He complained of intense aching in both arms, and of numbness and tingling all over. He was ordered to take a grain of calomel and a quarter of a grain of opium every six hours; and to take a dose of saline mixture every four hours. About a pint and a half of strong high coloured acid urine was drawn off by catheter.

Sept. 6th. He was as yesterday. The bowels had not acted. Catheterism was employed twice. The urine was very strong, acid. He was ordered to omit the calomel and opium, and to take a purgative mixture. He had had no sleep. There was flatulence.

Sept. 7th. Pulse 70; respiration easy. He had had a few hours sleep. Faeces came freely from the bowels this morning. There was great flatulent distension. The urine dribbled slightly; it was very faintly acid. Catheterism was performed daily every eight or ten hours. He was ordered to take nitric acid and bark mixture. Priapism continued.

Sept. 8th. He slept a little, and felt better. There was no improvement in motion nor in sensation. The urine was acid, very bloody, and strong. The bladder was washed out with tepid water. The priapism disappeared.

Sept. 12th. Sensation in the legs was about the same. Over the chest he could distinguish two points three inches apart. There was no motion from the bowels, except an occasional button, since the 7th. He was ordered to take an ounce of castor oil.

Sept. 13th. Abundant excretion from the bowels took place last night. He slept well. The pulse was very jerking and irregular. He had occasional fits of difficult breathing. He was losing flesh rapidly, though his appetite was good, and he was allowed good meat diet with arrowroot. He was ordered to take castor oil every morning.

Sept. 14th. There was great flatulence. The urine was alkaline and bloody. The bladder was washed out with acidulated tepid water.

Sept. 15th. He said he felt better; but there was no real improvement.

Sept. 16th. He had had a very comfortable night. The bowels acted freely. He was very tympanitic. Pulse very weak and thready.

Evening. I was sent for in a hurry, and found W. W. bathed in a cold sweat, struggling for breath, and in imminent danger of suffocation. Moist râles were heard in the throat, and here and there over both lungs. He was ordered to take a glass of hot brandy and water immediately, to have sinapism applied to the chest, and to take a tablespoonful of brandy in water every hour.

Sept. 17th. He had had a most distressing night; he had "hawked up" a little mucus. Respiration was rather easier. Moist râles were more general over the chest. He raved a good deal at times, but his intellect was quite clear when his attention was arrested. He was ordered to continue the brandy. At midday, the respiration and pulse were worse. He was ordered to take, every four hours, a draught containing ten minims of ipecacuanha wine, fifteen minims of chloric ether, and fifteen minims of tincture of squills, with water.

Sept. 18th. He had had a wretched night; his respiration was easier than on the previous day; pulse exceedingly irregular and weak. There was still a good deal of rattling in the chest; and he was occasionally troubled with most distressing efforts to cough, which were quite abortive.

Evening. He was worse in every respect. The pulse was so jerking and irregular, that it was impossible to count it.

Sept. 19th. He was evidently sinking. He died easily, after several exhausting paroxysms of attempted cough, at 4 P.M.