

the lost tissues, and ultimately itself disappear after completing the work of restoration. Nor is it impossible to bring on this change, and transform pus blastema into healthy plastic lymph. The inflammation which will succeed to the first will hardly vary in intensity; it will not react unfavourably on the system, and however large the secreting surface may be, scarcely will the pulse beat quicker; it will pass as a good deed, unknown! But this is not all; pus will no more be secreted, and at the same time absorption will be stimulated. The new life given to the pyogenic membrane will extend its influence to the whole immediate capillary system. Restoration and absorption work thus hand in hand, urged on together by the same beneficial influence. On this combined effect is based the treatment I have followed. Instead, however, of a good local circulation, general health little impaired, and free secretion, conditions I have given as the most favourable for absorption to take place, I do not fear to accept, as I did, even the opposite conditions; as no sooner will plastic inflammation have modified the abscess than under that influence alone the cause of all anxiety will vanish, and with the disappearance of the local morbid condition the general health will soon be restored.

(To be continued.)

# ON A CASE OF FRACTURE OF SKULL, FOLLOWED BY PULSATING FLUID TUMOUR OF SCALP, AND ESCAPE OF CEREBRO-SPINAL FLUID.

By J. WARRINGTON HAWARD, F.R.C.S.

THE following case occurred in the practice of Mr. W. H. Gardner, of Gloucester-terrace, through whose kindness I saw it.

W. G.—, a child nineteen months old, healthy and intelligent, fell head foremost through a skylight on to a wooden floor, a distance of fifteen feet below, where he was found a few minutes afterwards in an insensible condition. He remained quite insensible for about twenty minutes, and then gradually began to show signs of consciousness, but was drowsy and inactive for the next twenty-four hours, after which he regained his usual condition of intelligence and activity. There was no bleeding from the ear or nose, nor vomiting, nor did the parents at first detect any injury of the head besides a slight bruise over the right temple. After about an hour, however, they observed a swelling over the right eyebrow and the portion of forehead above it, which, after a few hours had elapsed, had extended upwards to the extent of three inches, and which continued steadily to increase in prominence. After four or five days the corresponding upper eyelid became swollen, and at the end of a week the palpebral conjunctiva became everted by the distension of the lid, so that the eye could not be seen. No hæmorrhage or swelling was observed beneath the ocular conjunctiva. The swelling day by day became more tense and transparent, but the child did not seem to suffer much pain. He frequently rubbed the side of his head and mastoid region with his hand, and was at times unusually fretful; but took his food well, played with his toys, and seemed in otherwise good health.

The parents, in addition to the history given above, informed me that he had been in much the same condition up to the time that I first saw him, which was on Sept. 5th, six weeks after the accident, when his condition was as follows. He is a well-nourished child, not rickety, rather pale, and with a head rather large posteriorly. He is as intelligent and active as other children of the same age, but rather fretful. Over the right brow, and the forehead above it, is a transparent fluid swelling, which is about an inch in height, of the width of the orbital arch, and extending from the brow to the position of the coronal suture. This swelling is tense and fluctuating, and, on gently keeping the hand on it, can be felt to pulsate distinctly. When examined against a light (after the manner of a hydrocele of the scrotum), its contents appeared to be entirely fluid. It cannot be per-

ceptibly reduced by pressure, the attempt causing, however, some discomfort to the child; and it is decidedly rendered more tense when the child cries. The swelling extends downwards from the brow into the upper eyelid, which is very tense; and the palpebral conjunctiva is a good deal everted on to the face; the eye cannot be seen. On pressing steadily with the fingers upon the tumour, a sensation is obtained as of an edge of bone near its outer margin over the brow; but the tumour is so tense that no bone can be distinctly felt beneath it. The tongue is clean, skin cool, temperature normal, pulse normal, and bowels regular. There has been no convulsion nor sickness.

The child had been seen a short time previously (in consultation with Mr. Gardner) by Mr. Barnard Holt, who thought it probable that there had been a separation of the temporo-parietal suture, with laceration of the dura mater, permitting the escape of cerebro-spinal fluid, and (from the distinctness of the pulsation) probably also of a portion of brain. He advised slight pressure to be kept up on the tumour to prevent further escape of the contents of the skull, hoping that by the deposit of fresh bone the tumour might be eventually cut off from the cavity of the skull. This pressure was not, however, persevered with after a few days, as it seemed to give the child pain.

From this time the child gradually began to lose ground: it ceased to walk, became very fretful, and its appetite failed; it seemed also to have more pain about the tumour. I saw it several times in the course of the next three weeks, during which the tumour increased slightly in area, and became, if possible, rather more tense. I advised nothing to be done, unless more urgent symptoms arose. During the following week, however, the child became decidedly worse, was very restless, occasionally rigid, and seemed to suffer pain in the head. Absence from town prevented my seeing it again; but, from the description of the parents, its condition was evidently becoming daily worse. On the 2nd October Mr. Holt was again asked to see the child; and, from the extremely tense state of the tumour, the thin condition of the integuments, and evident irritation of the brain, he thought it advisable to puncture the tumour. This he did with a very fine trocar, and drew off eight ounces of clear fluid. The tumour then collapsed, which rendered evident the fracture of the frontal bone described below. The puncture was closed at once, and the tumour rapidly refilled, the condition of the child remaining much the same until Oct. 10th, when it had some twitchings of the limbs of the left side. On the morning of this day the conjunctiva gave way, and a large quantity of clear fluid continually drained away, so that sponges had constantly to be applied; and the parents stated that they were sure more than a pint of fluid escaped in the twenty-four hours.

Oct. 11th.—There were frequent convulsive movements of the left side. The child constantly whines, and refuses food; is feverish.

12th.—Frequent convulsive movements, always confined to the left side. A large quantity of clear fluid continues to escape from beneath the eyelid. During the night he became drowsy, and could with difficulty be roused; and gradually sank into a state of insensibility; this continued till death, which occurred on the 13th. During the last two days the tumour had decreased considerably, and the fractured bone could be felt.

Hearing of the child's death, I with some difficulty obtained the parents' permission to examine the injury of the head externally, but was not allowed to open the head or examine the rest of the body.

Autopsy (Oct. 17th).—There is fracture of the frontal bone on the right side, a portion above the frontal eminence, about the size of a crown-piece, being driven inwards to nearly the thickness of the bone. The arch of the orbit was fractured, and the external angular process driven outwards with its corresponding portion of orbital plate and superciliary ridge, so that the handle of a scalpel was easily passed into the substance of the brain, through the fracture and torn membranes. The bone was bared of its pericranium over all the depressed part, which was that where the tumour had presented; and here the scalp had been raised from the bone by the escaped fluid, and formed a loose bag. There was a very small quantity of pus about the site of fracture of the orbital arch. The depression of the superior part of the bone prevented the possibility of replacing the orbital part, which it kept separated as by a wedge. There

was a small loose fragment on the inner side of the orbital fracture. External appearance of child otherwise healthy.

The case presents several points of interest. It adds another to those rare cases in which there has been an escape of cerebro-spinal fluid from the vault of the skull; but I am not aware of any case in which this fluid formed a pulsating tumour under the scalp. By the accident the child was rendered in somewhat the same condition as if it had had an ordinary meningocele, but with of course the addition of the injury to the bone; but it is probable, I suppose, that if the child had lived the tumour would have been cut off from the cavity of the skull by the union of the fracture, and thus have been reduced to an innocuous cyst of the scalp. It is to be regretted that, from the objections of the parents, the condition of the brain could not be ascertained; but the history of the case certainly points to a merely expectant treatment. It is remarkable, however, that the convulsions of the last few days of life were all confined to the left side, so that they could hardly have been directly due to the escape of the cerebro-spinal fluid, but were, I suppose, more probably the result of some irritation from the fractured bone, which the escape of this fluid allowed to come in contact with the brain. But considering the length of time since the accident during which there had been no head symptoms, and the complications of the case, operative interference could hardly, I think, have been recommended.

Queen Anne-street, July, 1869.

### CASE OF INTESTINAL OBSTRUCTION LASTING FORTY-SIX DAYS.

By HENRY M. MADGE, M.D.

Mrs. L—, aged twenty-eight, married, and had two children. Belonged to a healthy family, and until lately had good health. Was a teetotaler, and for some time had been remarkable for being a large eater, particularly of animal food. Her youngest child was born on February 27th, 1867. When six months advanced in her last pregnancy, she had an attack of diarrhoea, and subsequently began to suffer from constipation. About six weeks after her confinement, finding the constipation rather troublesome, going sometimes a week without proper relief, she became an out-patient at the Middlesex Hospital, and attended for three months. Not deriving much benefit, she went to the Homœopathic Hospital in Great Ormond-street. After being under homœopathic treatment for several weeks she gave it up as useless.\* During all this time the general health was not very much affected, and she was able to attend to all her household and other duties. Towards the end of August, 1867, she passed several days beyond the time usually occupied by her constipated periods, and became very ill, with sickness, fever, rapid pulse, coated tongue, and great abdominal pain and distension. Several means were employed to overcome the obstruction, and on the twelfth day the bowels were relieved, apparently from the use of enemata of various kinds, and large doses of calomel frequently repeated. For two or three days the bowels were relaxed, and were relieved of an immense accumulation of fæces. All the flatulent distension disappeared, and the abdomen passed to the opposite condition of extreme flatness and emptiness. There was no tenderness anywhere on pressure. All the fever and other unfavourable symptoms gradually left her, and the bowels began to act regularly once a day. The patient soon regained strength, and was able to get about as usual, which she did for nearly a month. It was found, however, that she was constantly obliged to take aperients, and she was cautioned against the consequences of not doing so. Partly from neglecting this precaution, and partly, I believe, from some irregularities in diet, she again fell into her previous condition of constipation and attendant symptoms. This time, however, the attack lasting longer, many of the symptoms—the pain, sickness, prostration, &c.—were aggravated. The obstruction gave way on the fourteenth day, apparently from the

use of warm-water enemata, and frequent small doses of sulphate of magnesia. She again made a rapid recovery,—indeed, more rapid than before, and was able once more to get about for several weeks, when, unfortunately, after neglecting the state of the bowels, all the old symptoms returned. I did not see her until the sixth day of the obstruction, when the fever, sickness, &c., were just beginning to show themselves.

The friends, with the view, as they said, of obtaining more permanent relief for the patient, now determined on getting her admitted into the Middlesex Hospital. She remained in the hospital ten days. The measures that were employed, however, failed to overcome the obstruction. She left the hospital abruptly on hearing, or fancying she heard, something about an operation to be performed on her. As the patient and her friends were disposed to regard the case as hopeless, several days elapsed before I was sent for. I found her in a very exhausted state, and in extreme pain, from the almost constant violent twistings and contortions of the intestines above the seat of obstruction. The colon was enormously distended, and its rolling movements were distinctly marked out on the surface of the abdomen. Opium and pressure considerably relieved some of the symptoms—the intestinal movements, also the pain and restlessness. In other respects, the patient got gradually worse.

About the thirty-sixth day of the obstruction, the wasting of body and distension of belly were very great. Measurement at umbilicus, 38 inches; pulse 120, and very feeble; features pinched and care-worn; intellect clear; tongue deep red, but moist; urine scanty and high-coloured; skin moist and cool; sickness frequent, but there has been no appearance of fæcal matter; stomach rejects everything in the shape of nourishment; supported chiefly by beef-tea enemata. The chances of prolonging life by means of an operation were fairly and frequently placed before the patient and her friends. The suggestion, however, was always met by firm opposition.

She died on December 31st, the obstruction having lasted forty-six days.

Mr. Newton saw the case with me on several occasions, and assisted in directing the treatment.

*Post-mortem examination twenty hours after death.*—Only a partial examination was allowed. The body generally was greatly emaciated, and of a dusky-yellowish hue. Measurement of abdomen at umbilicus, 40 inches. On opening the abdominal cavity, the distended intestines started out, and seemed like a series of large bladders. Their coats were highly vascular, but everywhere free from lymph or adhesions. The seat of obstruction was found to be at the upper part of the sigmoid flexure, the portion of intestine immediately above being so immensely distended with soft fæces as to hang over, and almost fill up the pelvic cavity. A ligature was placed above and below the seat of stricture, and the part removed. On examining the preparation, it was found that the stricture was due to the cicatrization of a former ulcer of the mucous membrane—an opinion confirmed by another gentleman, a much better authority than myself.

*Remarks.*—The few remarks that I shall venture to make on this case will be—1st. That the history of the case, particularly the sickness coming on late in each attack, and at no time with fæcal matter, and the early distension of the colon, indicated all along that the seat of obstruction was low down in the intestinal canal—that is, in or about the sigmoid flexure. This was readily diagnosed during life, and it was on this diagnosis that the recommendation of Amussat's operation of opening the colon was founded. 2nd. That, as other means failed, all that could be done was to adopt Dr. Brinton's plan of giving opium, and lengthening out life by every possible means, in the hope that the obstruction would give way.

Fitzroy-square, June, 1869.

**ILLNESS OF THE DUCHESS OF AOSTA.**—The Italian papers state that her Highness has suffered from miliary fever, and that she is, happily, on the way to recovery. *L'Imparziale*, of Florence, is however astonished that the health of the Princess should be entrusted to men who, though certainly highly distinguished, are nevertheless principally noted as surgeons; whilst no consultation has been held with any of the eminent physicians of whom the University of Florence is justly proud.

\* The leading feature of this treatment appeared to be warm-water enemata.