another above, and another below it. The wire down the back should be of such length as to admit of free motion of the head without moving the plate. A zinc plate is to be fastened to the wound at the knee, in the same manner; but in place of the second layer of sponge, a bit of muscle, answering in size to the zinc plate, is to be interposed. This apparatus will continue in gentle action for 12 or 24 hours. The sores now require cleansing and dressing, and the plates polishing. The best conductor is three or four fine copper wires; a chain will not do.

The apparatus was applied, in the present case, according to the foregoing directions, and all other remedies were suspended; and not a single paroxysm of epilepsy has occurred from the day of the application to the present time, being more than two years. He discontinued the apparatus after it had been worn six months.

Dr M. records a great number of cases successfully treated by this remedy. Of his theory, I offer no opinion; but in the efficacy of the remedy I feel the greatest confidence, in cases like the foregoing, and recommend it to the profession for further trial.

Providence, June 12th, 1826.

Miscellaneous Cases.

By WALTER CHANNING, JR. M.D.

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SPINA BIFIDA.

SPINA bifida, *divided spine*, *spinola*, and *hydrorachitis*, for it has all these names, is a congenital mal-formation of the spine. We have descriptions, with drawings, of cases of this disease, in the writings of Tulpius, Ruysch, and Morgagni, among the older medical writers; and in those of Darwin, of Abernethy, Crowther, in his work on White Swelling, and Okes, in his account of spina bifida, among the latter. The disease has always been fatal, under whatever treatment, according to the observation of all these authors. Mr Abernethy has proposed a method of treatment, puncture, which he has once tried, but without success. He considered his case an unfavourable one for his method; and if it were so, his treatment remains for further trial. Mr Okes considers Mr A.'s mode to be so objectionable, that he dissuades from its further use.

Spina bifida, in a few words, consists in a deficiency of bone, greater or less, in the spinal column. Sometimes one or more of the spinous processes are wanting, with or without a deficiency in the lateral processes. Sometimes a small space only exists between two vertebræ. A tumour is the consequence of both of these mal-formations. In the former the base is broad, and the tumour corresponds with it; in the latter the tumour hangs by a small pedicle from the back. The lower part of the spine is most frequently affected. Sometimes the disease depends on a defective formation of the sacrum. The tumour is either formed externally by the common integuments throughout its surface, which is rare; or by these and a translucent membrane occupying a portion of the centre, which is most common; or by this translucent membrane entirely. This membrane is the dura matral covering of the medulla spinalis. The contents of the tumour are a fluid exactly resembling pure water in its external characters, and the spinal marrow. This last is much divided into fibrils, more or less delicate, which traverse the tumour in different directions, and some of which are inserted into various parts of the sac.

Three cases of spina bifida have come under my observation. The first was fatal within a week after delivery, the tumour having burst, and inflammation of the whole sac having taken place. It may be remarked, that this was the second case which had occurred in the children of the same individual. They were both males. Two female children were previously born, and one subsequently, perfectly well formed, and which have been reared. The second case was treated by puncture, as recommended by Mr Abernethy. The puncture was made by a narrow flat instrument, and the fluid fully evacuated. The wound healed readily, and new accumulation of fluid occurred. The water was again and again discharged, but inflammation at length took place, and death soon followed.

CASE III. This child was born June 3d, 1826. He was a fine, large, vigorous infant. The mother suffered much hemorrhage before the placenta came away, was very faint, and required much and constant attention. The nurse was directed to wash and dress the child, while I remained in immediate attendance on the patient. As I was leaving the chamber, I was requested to examine the child, as a very unusual appearance was noticed on the lower part of the back. Upon examination, a tumour, of a dark red hue over most of its surface, was discerned in the place indicated. Its character was too unequivocal to leave any doubt as to its nature; it was a case of spina bifida. Upon a more careful inspection, it was found

that the common integuments were deficient over nearly a third part of the surface. Their place was supplied by a delicate translucent membrane, of a light pearl colour, and of an irregular quadrangular shape. The tumour was very much distended by its contents; was nearly two inches, say an inch and two-thirds in diameter, and nearly round. It much resembled, in colour and shape, a ripe nectarine. It was pronounced a *mark* by the nurse, and it was soon discovered that the mother had *longed* for an article of food which resembled the tumour, at least in colour. The motions of the lower extremities were perfect, and the whole appearance of the infant indicated a perfectly healthful development.

An important and not easy question arose. What should be done in this case? Should the tumour be left to break, and the child to die of the supervening inflammation,—or should the fluid contained in it be discharged by puncture? I preferred the latter alternative; my reasons were, the health of the child, the free motions of its limbs, and the size and appearance of the head, which were perfectly natural. I had the authority of Mr Abernethy, and could have had the better of Mr now Sir Astley Cooper. I say better, because in one case at least this mode of treatment, under his use of it, had been successful. One case occurred to me as supporting the operation, which, though not spina bifida, has with this some points of resemblance. I refer to the case of hydrocephalus externus successfully treated by puncture, by Dr Vose, of Liverpool. In this case the water was contained within the same membrane as it is in spina bifida; and, though a natural formation, a somewhat similar deficiency of bone existed in that case as in the one in question.

June 4th. I punctured the tumour this day for the first time, and evacuated the fluid entirely. The instrument was a large surgeon's needle;—this was selected because it was believed the opening made by it would heal more readily than one made by a large round needle. The fluid was colourless, exactly resembling water; the quantity could not be ascertained, as it escaped by a small stream down the side. The puncture was made in that portion of the tumour which corresponded to the common integument of the back; it was made very near the base, and in the most depending part. The skin fell into large wrinkles or folds as the fluid passed off, and a deep excavation existed in the centre, or where the strictly membranous portion of the surface was situated. No disposition to contract was to be observed in any part of the integuments. A simple dressing was applied, and a bandage making moderate pressure retained it in its place. The child seemed to

suffer nothing from the puncture; he did not shrink at all from the needle, or utter the least cry.

5th. The tumour was found very tense, and of the same deep red colour as on the preceding day before puncture. The fluid was again evacuated. The redness entirely disappeared after the water was drawn off, and the same thing had been noticed the day before. Dressings the same.

6th. Tumour fully distended. The dura matral portion seemed so exceedingly tense, that I looked for it to give way, by the increased tension which occurred when the child cried. It almost invariably cried upon turning it on the side or abdomen, in order to come at the tumour, but immediately after became easy, and scarcely in any instance were its cries renewed by the needle. Crying always increased the tension; and when the water was nearly removed, if crying took place, the tumour almost invariably became tense, and a greater quantity escaped. The wound always healed, or closed, in an hour or two after puncture.

7th. The nurse informed me that the sac became filled in from two to three hours after the water had been let off. She had also observed that the feces and urine were passing almost constantly, the latter in drops, and she was satisfied the infant had no power to retain them. After puncturing, a graduated compress was nicely adjusted to the excavation formerly mentioned, and to the whole surface of the tumour, and a bandage applied to retain it accurately in its place.

8th. Tumour not diminished. A portion of the compress was found sticking so closely to the thinnest part of the sac, that it was thought best not to be disturbed, lest laceration should be produced. Tumour punctured.

9th, 10th, 11th. The same. The portion of compress which had adhered was removed on 11th. It was found that slight inflammation had been produced by it, and that a slightly suppurating and granulating surface was the consequence.

The tumour continued to fill and to be punctured daily, for nine days; it was then left full for two days, and then again punctured. The surface was healed entirely, and the thin portion of the sac which had been inflamed by pressure was found much firmer and apparently thicker than before.

It is unnecessary to continue the record of daily occurrences, as nothing very important was noticed till about the twentieth, when I found the tumour nearly flat, not at all inflamed, and the child very comfortable. It appeared that a small opening, too minute to be seen, had taken place, through which the fluid was slowly but constantly escaping. This was not an

opening left by puncture; in every instance this had closed a very short time after being made. The fluid oozed from near the centre of the tumour. This state of things lasted two days, and the opening then closed, and the sac was found fully distended every day afterwards till death. The child failed in the last three or four days of life; it vomited greenish yellow matter, and refused food. It now fell off rapidly; and though it again took food, its flesh rapidly disappeared. It died about six weeks old. The only circumstance worth note which has been omitted is, that at times it manifested great suffering by long continued and severe fits of crying or screaming;—of these, three or four occurred. In the last ten days, it was at times extremely cold on the surface, and frequently covered with sweat.

I examined the spine the morning after death. Externally, the body shewed great emaciation. The head was very striking; the sutures and fontanelles were shrunk deeply, the latter particularly, as if the cranium had been emptied of its contents. The tumour of the spine was quite flat, and wrinkled, as after being punctured. It had not been opened for three or four days. An incision was made in the length of the spine, near the base of the tumour on one side, and continued down upon the sacrum;—a fluid, similar to what has been noticed, was discharged freely on the incision. Upon looking into the sac, the medulla spinalis was found issuing from an opening in the spinal column,—but was observed to terminate abruptly, or not to enter the canal of the sacrum. In fact, there was no canal in this bone, a slight groove only being perceptible a short distance on it, continuous with the imperfect spinal canal. The integuments now being raised, an incision was carried on the other side of the tumour, joining the first below, and extending near the first one above. The flap thus formed being raised, it was found that the spinal marrow, in place of continuing down, had turned abruptly backwards, and was firmly attached to that portion of the integuments of the sac, which has been designated as the dura matral coat of the medulla spinalis. Very delicate fibres of nerves traversed the inside of the tumour in various directions, and were inserted into it in different spots. Water was observed to ooze freely from the opening in the spine through which the medulla emerged into the tumour. The medulla was much less in diameter than the spinal canal, and very hard or firm. This arrangement of the cord may account for the want of sensibility in the sac. The child never cried during the puncture, and this it would have done had not the part been

insensible. The places chosen were in the thickest part of the integuments; but it was found, on examination, that the needle had always been introduced *below* where the nerves existed.

Mr Cooper's paper, before referred to, is in the second volume of the *Medico-Chirurgical Transactions*. It contains four cases.* In the second, puncture by needle was employed at first, and afterwards treated by pressure with success. This child did well. In the third, the skin over the tumour was ulcerated at birth. The treatment was at first by puncture; much disease occurred, and was fatal. The fourth was at first treated by the needle, and afterward by pressure. The tumour is described to be large. At a year and a half old, the child is represented to be very vigorous.

Three Cases of Preternatural Labour.

CASE OF ARM PRESENTATION.

THIS is the most difficult of the preternatural births. The difficulty belongs essentially to the presentation; and this may be readily understood, by referring to the relations the arm has with the trunk and the head. Various circumstances may add to the inherent difficulties of the case. Among these may be enumerated, its being a first case; early rupture of the membranes, and discharge of the liquor amnii; partially dilated, or an undilatable state of the *os uteri*; a similar state of the external organs; violent uterine action, with great disposition in this organ to be affected by external or internal pressure; the arm protruded far from the external organs; irritable habit of the patient. Now under these circumstances, or many of them, great difficulty will be encountered in the management of the case. The favourable circumstances are the opposite to those just mentioned. Among them may be enumerated, its not being a first child; the membranes being entire when the case is discovered; a yielding mouth of the womb; a healthy state of the uterus, and connected organs; early attendance on the case; the arm being but partially in the vagina. Many of these latter circumstances concurred in the following case.

Mrs ———, mother of three children, was taken, in the

* The tumour in the first was small, the size of a large walnut. It was treated by pressure, principally made, by a piece of plaister of Paris, slightly hollowed, and the hollow filled with lint. The disease continues, and is increased in size, being as big as half of a small orange;—a truss, however, keeps it in its place, and prevents accidents. The child is between four and five years old, and is very vigorous and healthy.

morning of — June, 1826, with labour pains. Her physician saw her in the afternoon. Pains were regular; the waters had passed off, but the mouth of the womb was only slightly dilated, and the presenting part not made out;—a tumour of a remarkable character was felt in the vagina, evidently attached to the symphysis pubis, and, during the pains, was protruded somewhat beyond the labia. It was distended with fluid. The patient stated that this tumour appeared after a former labour, and had troubled her more or less since. The physician now left the house, with directions to be called when the pains became urgent. He was called in the evening, between eight and nine, and, upon examination, discovered the hand and forearm in the vagina, the fingers being just within the labia. I was requested to see this patient, in consultation with the attending physician. I found the presentation as described. The humerus was felt extended across the pelvis just at the brim, and the arm hanging in the vagina. The tumour above mentioned was very easily felt; during a pain, it was forcibly protruded from the vagina, and became very tense,—in the interval it receded, became flaccid, and the fluid which it contained was very easily made out by a distinct fluctuation. The question of treatment was soon settled;—it was determined that the child should be turned, as the surest means of its safety, and of the mother's welfare. The circumstances favourable to the operation were, the regularity of the pains, a capacious pelvis, the situation of the hand and arm, and the dilatable state of the soft parts. The unfavourable, if such they may be called, were, the entire evacuation of the liquor amnii,—the strength of the patient's pains, increased as they were by her voluntary efforts, and which no advice could prevent,—the large tumour before described as occupying the vagina,—and the situation of the humerus across the pelvis.

Before the operation, the catheter was introduced; this was done with much difficulty; urine at length passed through it; the tumour was not sensibly diminished by it; pressure was made on the tumour, and the urine was observed to flow more freely; it was not, however, greatly lessened in size. It was now examined as to its external characters. It was found to be of a whitish red colour, resembling the urinary bladder exactly, which it unquestionably was, but wanting the appearance of the vaginal covering which this organ has in its recent prolapsus. This was owing to its having been long prolapsed; for it is well known that a great change takes place in the colour and arrangement of the vagina, or its lining membrane,

when protruded from its natural situation, by a prolapsus of any of the viscera of the pelvis.

The first obstacle to carrying the hand into the womb was the humerus. The shoulder rested on one side of the pelvis, the elbow on the other, in a direction somewhat diagonal of the cavity. The os uteri was dilatable, but was not much more dilated than was sufficient for the upper arm to pass through it. Much delay was experienced in the dilatation of this part, in the progress of the hand. The liquor amnii having been long and entirely drained off, the uterus was found in close contact with the fœtus. During the state of relaxation which occurs in the intervals of pains, the hand could advance; but this effort, (though made with great care,) in the beginning of the process, was for some time followed by powerful contraction, forcibly compressing the hand against the fœtus, and sometimes nearly expelling it from the cavity. At length the abdomen of the fœtus was gained, and the cord felt to be pulsating strongly. Next one of the knees was reached, the leg being bent strongly on the thigh, the knee looking to the anterior face of the womb. The fore finger first, and then the second, were next passed round the ham, and a firm hold thus obtained of the limb. During a complete interval of the pains, an effort was made to bring the limb down, and it at once began to descend. The effort was continued, with proper intermissions; and at length the limb was delivered. The presenting arm receded but partially. This was at the beginning of the operation. It was observed afterwards to protrude still lower, as the leg was made to advance,—and this notwithstanding all the attempts that were made to carry it up, both while bringing the leg down, and in the intervals of extracting. The whole breech at length came down, and the other lower extremity dropped out. The body being born to the cord, a loop of this was drawn down, and the pulsation was ascertained to be vigorous. The arm which originally presented came along with the trunk, and the other was brought down with ease; the head soon followed, and I was much gratified to find the child breathing. The respiration was very languid, and it occasionally ceased to breathe. The ordinary means were, however, very diligently employed; and the child, after nearly an hour's exertion, was breathing perfectly well. The tumour before alluded to continued to protrude further and further, during the whole of the operation; it entirely receded after delivery. The patient has done perfectly well since her confinement. In the whole management of this case, I received very important assistance from the attending physician, Dr W. Lewis.

A subsequent examination of this patient has been made, about a fortnight since labour. The labia were found widely separated by the prolapsed bladder. This organ fills the vagina, and is always, to some extent, external to it, in the erect position. A catheter was introduced, its point following the direction of the bladder, and near half a pint of urine was drawn off. The tumour immediately became flaccid, and receded into the vagina. The os uteri was felt high up, and turned towards the sacrum. Coloured mucus is constantly effused from the vagina. The woman is in good health, and seems very little incommoded by her disease.

CASE OF FOOT PRESENTATION.

Within three weeks of the case just briefly narrated, two other instances of preternatural presentation have come under my observation. In the first of these, a foot presented. Labour was here premature;—the eighth month of gestation was nearly completed. The patient had always been an invalid,—and, for the preceding seven months, had scarcely left her bed. The lower extremities were œdematous to a great degree. The labour was accomplished with great difficulty, considering the smallness of the foetus. The child was still born; and, from the state of the cuticle, it was evident it had been dead some time before labour occurred. The labour lasted about eight hours. I saw this patient accidentally, the attending physician being absent. She was ill after labour, and I continued to see her for a few days. The result of the case I have not learned.

CASE OF PRESENTATION OF THE RIGHT HIP.

The next case occurred at the full time. The patient was healthy, and this was her first labour. The right hip presented. I was called to this case in the country, from the belief that some assistance from instruments might be useful. On examination, the right hip was felt in the vagina, about midway between the brim and outlet of the pelvis. The membranes had broken early in the labour, and the waters had gradually drained off. The anterior portion, or lip, of the os uteri, protruded far below the presenting part;—it was elongated, very thick, and was nearly on a level with the superior commissure of the external labia. The sufferings of the patient were extreme; I have rarely, if ever, heard so violent expressions of pain as were uttered by this patient. The os uteri,

laterally, and particularly at that part which looks to the sacrum, was well dilated. The spine of the fœtus was towards the anterior face of the womb, or towards the symphysis pubis. My first attempts were directed to the protruded portion of the os uteri. In the intervals of pains, this was carefully pressed upwards. It was dilatable,—no pain was experienced from the pressure. It could not, for some time, be retained in the situation to which I could carry it with tolerable ease, every pain bringing it down again;—this, at last occurred in a less and less degree, until it was fairly slipped beyond the presenting part. The hip now advanced slowly, but steadily, with the pains,—and at length it and the breech were protruded. The cord was found pulsating when it came in reach of the finger, and the trunk and upper extremities were protruded favourably. The pains grew less strong after this, and at length almost ceased. The pulsation grew very feeble in the cord, and attempts were made to deliver the head. The chin was depressed, and the air was freely admitted to the mouth. Respiration, however, did not take place. Pulsation had entirely ceased when the head was delivered, and this last was effected as soon as circumstances allowed. Artificial respiration, with the other means of animation, were at once employed. The circulation was fairly restored. The heart beat regularly and strongly. Pulsation in the cord was equally distinct. The circulation continued perfect, under the use of artificial respiration, full half an hour. Frictions, warm applications to the surface, cold water dashed on the surface, particularly the chest, stimulating substances to the nose and fauces, and artificial breathing, were perseveringly used, but without the desired effect. The circulation again failed, and at length ceased entirely. The difficulties in this case were, beside the mal-presentation, a firm and unyielding state of the external organs,—the protrusion of the anterior portion of the mouth of the womb,—its being a first and a large child. I have rarely known the perineum yield so slowly, where the pains were so urgent, and the lubrication of the vagina so abundant, as was the case in this patient. After the removal of the protruded portion of the os uteri, nothing was required till the birth of the body, but support to the perineum. The distension of this part was excessive, and laceration strongly apprehended. The attending physician, Dr Folsom, had the management of the body of the fœtus at this time, while I gave such support to the perineum as circumstances required.

Brief Notices of three Cases of Erysipelatous Inflammation occurring in the Course of other Diseases.

THESE cases were fatal. The patients were in a most unfavourable situation from previous disease, and there was almost no expectation of recovery from the moment of attack of erysipelas. Erysipelatous inflammation had occurred in the house in which they were ill, in a patient who had suffered a very severe, and almost universal contusion, complicated with compound fracture of the femur, and who at length died. It occurred in other patients with surgical diseases, or on whom operations had been performed, and though very well marked, was in none of them fatal. These patients were comparatively well to the time of the attack, presenting, in this circumstance, a very marked difference from those whose cases will now be briefly described.

CASE I.

J. H. aged 41. 2d June, 1826. Has been ill twenty days, with fever, accompanied with diarrhœa. He got better in course of ten days; but about that time found his left leg to be somewhat stiff, and swollen. Swelling was first noticed about ham and groin, with much soreness and pain, particularly on pressure. Swelling soon extended over the whole limb. Limb described to have been white and shining, not unlike *phlegmatia alba dolens*. I first saw him about twenty days from the attack, and six after swelling had occurred. The thigh was less swollen than it had been, though much larger than natural. The greatest fulness existed between the knee and toes. I found him with the following symptoms:—Leg as described; much emaciation; face, particularly lips, pale; tongue without coat, but rough and red; pulse 96, and hard; urine scanty, and high coloured; diarrhœa, but no tenderness or swelling of abdomen; no pain in any part; no cough or difficulty in the chest.

Under a treatment mildly alterative and tonic, he rapidly grew better. The diarrhœa abated, the limb became of the natural size, his pulse 72, and he could walk about freely. Emaciation, however, continued, and was very great, when in other respects he promised to do perfectly well. I considered him decidedly convalescent, and should soon have regarded him as no longer requiring medical care.

June 20th. The record of his state on 19th is as follows:—

The day was cold for the season, and stormy. Patient walked about freely, under cover, but much exposed to the damp, cold air. Awoke, towards morning of 20th, with severe pain in head and neck, with stiffness of the latter so severe, as to render it impossible for him to move without great suffering. Pulse 96; skin hot, but not dry; tongue very dry, and coated. He says a severe chill in the night preceded these symptoms. He got powder of colchicum root, with sub murias hydrargyri once in eight hours. Sinapisms to feet in evening.

21st. Bowels well evacuated by medicine, and rest procured by Tr. opii. Pulse this morning 84, less hard; skin warm; some delirium at night. The mind is now more clear; countenance dejected; eyes much sunken; nose swollen,—darkish red,—swelling extends to the cheeks; passage of air through nose obstructed, breathes by mouth; tongue dry, parched; neck swollen, tender; limbs sore; slight mercurial fœtor. Take powder twice a day.

22d. Tranquil; pulse 72, not easily compressed; mercurial fœtor increased; tongue cleaner; cheeks more swollen. Mercury to be omitted.

23d. Pulse 72; four dejections; slept badly; restless; swelling of nose diminished; cheeks as before; tongue heavily coated, dry; great thirst. Ammon. acetat. liq.; was directed to take acetum opii at bed time, if watchful.

24th. Pulse 120; patient makes no complaint; swelling of face less, it subsided somewhat in night; vesication on right cheek; eye-lids swollen; great prostration; respiration gasping; tongue dry, brown. These symptoms recorded at nine *a. m.* Stimuli were directed. He took the wine of the sulphate of quinine, alternated with wine whey, wine, or brandy and water, as either of these last might be most grateful. The surface was diligently rubbed with a warm embrocation, composed of camph. ol. Terebinth, and tinct. cantharid. The patient continued to sink; his skin grew cold, a clammy sweat broke out, and he died at half past 9 *p. m.*

The head was examined 27 hours after death. Upon removing the cranium, the dura mater was observed to be distended with fluid. Upon dividing this membrane, between three and four ounces of limpid fluid escaped. Very little fluid was found in the ventricles, but much at the base of the brain. The brain was very soft, as if from long maceration in water. No marks of recent inflammation in the substance or membranes were noticed. The vessels were in their ordinary state, and no extravasated lymph was any where found.

CASE II.

This was a young man, aged 22. He had been, according to report, ill with fever seven days before I saw him. His appearance now, June 7th, is very bad. Great emaciation; hollow face, irregularly flushed, as in hectic; lips cracked and swollen; teeth covered with dark sordes; tongue brown, perfectly dry, and cracked; great thirst, and the mind as in advanced typhus gravior; pulse 60; skin moist, except on face, which last is hot as well as flushed.

June 8th. Bowels have been well evacuated; no pain in bowels, but some in right hypochondrium, aggravated by pressure. Leeches were applied here, and afterwards a blister. A mild alterative course was directed, and an attempt made to restore tone, or preserve what remained, by a prudent use of nutritious diet.

9th. Hypochondrium relieved, but appearance of patient not altered for the better.

10th. Head, and temples particularly, very hot; teeth and mouth and tongue perfectly dry; mind more wandering. Cold applications directed to head, and a blister to back of the neck.

11th. In some respects patient more comfortable; he had slept better, and expressed himself as feeling better. Voice stronger, and countenance somewhat improved. His pulse, however, which had been slow till to-day, was found to be 108, and no change had occurred in the mouth. An enema had procured three dejections.

12th. Pulse 84. Some moisture about the mouth, with an improvement in the appearance of the teeth and tongue.

13th. Favourable circumstances continue, and even further progress to amendment has been made. Bowels well.

14th. Without apparent cause, increase of disease. The skin is hot, dry; face flushed; pulse 108, throbbing; hands very hot; mouth as dry as ever; thirst urgent; makes no complaint; drowsy; sleep has been very imperfect; is delirious.

15th. Erysipelatous inflammation observed on nose, extending to cheek; cannot breathe through nose; voice very feeble; expectorates frothy, bloody mucus.

16th, 17th. Inflammation rapidly extended. It soon involved the eye-lids, and the eyes were closed. The whole head became exceedingly enlarged, presenting a most striking contrast to what existed when the patient was first visited. No impression was made on the disease by the treatment employed, and the patient died on the 18th, at 6 a. m.

No examination was made.

CASE III.

June 27th. M. M. aged 29, a year ago, was taken with cough and pain in left side of thorax, with palpitation and dyspnoea; was very ill,—got somewhat better, but complaints continued, with occasional aggravations. Twelve weeks ago, complaints became worse; cough and dyspnoea increased. Eight weeks since, abdomen began to swell, and is now greatly swollen and distended; fluctuation very distinct; has much pain in abdomen; lower limbs much swollen,—œdematous,—have been scarified,—fluid continues to ooze from them; has been very costive,—no dejections without cathartic medicines; urine very scanty; dyspnoea and palpitation very troublesome, especially on motion; cannot lie in horizontal position; has paroxysms of extreme distress, threatening suffocation; for nearly two weeks past, has been expectorating bloody mucus,—sometimes blood, and in considerable quantity; coughs a good deal; tongue red, moist, slight white coat on sides; much thirst; is not without appetite; pulse 108, very small.

From this enumeration of symptoms, no hope of cure could be entertained; and there seemed no reason to look for any palliation from remedies. Means, however, were tried. Diuretics and expectorants, combined with tonics, were exhibited, and very unexpected relief was afforded the patient; she could walk about, and sleep comparatively well; the œdema entirely left the extremities, and the abdomen was diminished in size by several inches; the quantity of urine was greatly increased, the bowels grew more regular, and the cough and expectoration ceased. These favourable circumstances continued till the 18th July. I found her, on that day, complaining of pain in the left side, over the heart, with dyspnoea. The pulse was more rapid, and heat increased. Leeches were applied to the side, over the seat of pain, and afterwards a blister. The remedies which had before been found useful were resorted to. These means, with others, produced no amendment. On the 21st, slight erysipelatous inflammation was observed on the left lower extremity, near the foot. It very rapidly increased; and, on the 22^d, was found to extend over the whole limb. Leg enormously enlarged. Vesications formed every where below the knee, and were at once filled with a dark fluid, which soon became black. A blister was applied over the whole limb. Various internal means were employed, with a view to support the strength, and to check the inflammation. The whole skin became intensely yellow. No relief occurred; the inflammation extended almost over the whole of the left side of the trunk. The shoulder of this side, on the 23^d, exhibited nearly the same appearance as the lower limb. She died this day at 11 p. m.