HISTORY
OF A
SECOND CÆSAREAN OPERATION,
PERFORMED ON
THE PATIENT, WHOSE CASE IS RELATED IN THE NINTH
VOLUME OF THE SOCIETY'S TRANSACTIONS.
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[Dr. LOCHER's further history of the patient, whose life he preserved, with that of her child, by the Cæsarean operation, was transmitted to me, in the German language, by my friend Dr. Albers. I have translated it into English for the Society; and have added, as an appendix, a short account of three other cases, in which this operation has recently been performed in Germany with success.—W. LAWRENCE.]

Read June 20th, 1820.

SOON after I had sent to the Medical and Chirurgical Society the case of Cæsarean operation, which is printed in the Ninth Volume of their Transactions, the small ulcerated surface, which

had hitherto continued to discharge, finally closed under the use of astringent applications. The patient followed all her ordinary occupations as before the operation. The child was remarkably healthy and strong, and could stand alone, holding by a chair, at the age of nine months.

Towards the end of November in the same year (1817) the patient's husband came to me in a great hurry, with the account that his wife's belly had burst, and that something was hanging out of the opening, which he did not know what to make of. I was much surprised at the news; and, not being able to imagine what had happened, thought it almost ridiculous; however, I immediately dispatched my assistant to ascertain what had occurred, and to send me information, if it should be necessary. He soon sent back to require my attendance. I found that my patient had taken on the preceding evening, for supper, a large quantity of rice boiled in milk, and that she had drunk some acid liquor in the morning; fermentation had ensued, causing disorder of the stomach and vomiting. In the violent efforts accompanying this act, the cicatrix of the wound in the linea alba burst to the extent of about two lines, and a protrusion of omentum followed, which soon reached the size of a moderate fist. I found it lying warm and slightly bleeding on the integuments of the abdomen; the vomiting still continuing with acute pain.

In considering what should be done under these very urgent circumstances, three different proceedings presented themselves, *viz.* simply to replace the omentum ; to enlarge the wound for that purpose ; or to place a ligature in it, and cut off the protruded portion. The first measure seemed very difficult, on account of the smallness of the opening in comparison with the bulk of the protruded part. Dilatation was objectionable from the risk of subsequent protrusion of intestine ; and the third plan was unsuitable, because it might be expected to leave a fistulous opening, through which the abdominal contents would probably protrude on any exertion. I determined therefore to effect the replacement without enlarging the wound ; but this could only be accomplished by unfolding the omentum, and pushing in portion after portion with the scoop end of a silver director ; the whole was however returned after a very difficult and tedious process. All symptoms now ceased, but a portion of intestine presented itself almost immediately, in place of the omentum. I easily returned this, and closed the wound by a suture supported by charpie and sticking plaster. The patient was then treated as after the operation of strangulated hernia, with clysters and cooling aperients. Every thing went on well ; the edges of the wound united, but a small superficial ulcer remained, and continued open in spite of every effort to close it.

Hitherto, although the menses had not appeared

for three or four months; it was uncertain whether pregnancy had again taken place; but, in the middle of January, 1818, this was no longer doubtful. The motions of the child were now very lively, and the tumour projected over the pubes. Unless the child were very small, which I did not expect, a repetition of the first operation seemed too likely to prove the only ultimate resource. The abdomen had the same unfavourable configuration as in the first pregnancy, and the ascertained narrowness of the pelvis precluded all expectation of the uterus sinking into that cavity. At all events the patient must look forwards to a very serious risk, and the accoucheur to an arduous task. My principal apprehension was, that as the abdomen swelled by the enlargement of the uterus, the integuments would burst at the cicatrix, and a large protrusion of the viscera follow. I endeavoured to obviate this occurrence by the support of a broad laced belt.

No material change took place after this period, except that the ulcer became larger, reaching at last the diameter of three inches. Broad strong stripes of adhesive plaster were applied daily, to support the integuments; the ulcer being first covered with dry charpie.

The period of pregnancy was passed in all respects favourably; the patient retained her usual good spirits and cheerfulness, and whenever she

spoke of her approaching confinement, always expressed her wish that no attempts should be made with the forceps or other instruments, but that the operation should be immediately resorted to, as the safest and surest mode of relief. The abdomen continued to increase, completely overhanging the ossa pubis, and the motions of the child were so strong as not only to be felt by the hand, but to be distinctly visible.

She had reckoned on the end of May as the term of her pregnancy, and slight spasms were felt on the 22nd of the month ; but as she thought these would go off, antispasmodics were ordered. They recurred on the 23d, and, as they continued longer occupying the region of the pubes, they seemed more like real pains. Examination by the vagina however gave no indication of any thing contained in the uterus, nor could even the orifice of that organ be felt. These spasms lasted the whole day, and the child was felt in very strong motion ; about seven in the evening she complained all at once of a very acute pain, and felt at the same moment some fluid pass off through the external organs. This discharge, which was pure blood in considerable quantity, and which immediately stopped the supposed pains, ceased suddenly. Nothing was discovered on examining again *per vaginam* ; on the other hand, below the navel, in the line of the old wound, and under the ulcer, there appeared a circumscribed firm swelling, obviously

caused by the child's head, of which the sutures were plainly discernible. I naturally concluded that the uterus had burst, so as to allow the child to escape; and the hæmorrhage was thus easily explained.

As no urgent symptoms were present, nothing further was attempted; but a consultation with two physicians was appointed for ten in the evening. The spasms had recurred in the interval; but were now felt more in the lumbar regions than in that of the pubis, and were very troublesome to the patient. The repetition of the Cæsarean operation was the only measure that could be proposed under the circumstances of the case; the patient, so far from objecting, mentioned with the greatest calmness and resolution, that she had expected, from the commencement of her pregnancy, no other delivery than by this process, and that she resigned herself entirely to the disposal of her medical advisers.

The necessary preparations having been made, and some neighbouring physicians invited to attend, we proceeded to the operation about twelve at night.

There was now no choice of place for the incision; the round swelling caused by the child's head, pointed out the spot. The position of the patient having been arranged as on the former oc-

casion, and an incision of six inches in length made through the skin and adipous membrane, a quantity of coagulated blood appeared, affording a clear proof that the uterus had been ruptured. When this had been removed, the membranes presented themselves, exhibiting a bluish hue from the contained fluid; they were opened, and the head of the child immediately appeared. The navel-string passed round the neck, and the opening of the uterus was also contracted upon it. The funis was extricated, and a full-sized well-grown child appeared, but without giving any signs of life, except that the hands and feet were directed upwards, the mouth and lower jaw closed. The placenta came away during the attempts to re-animate the child. The uterus, which could be seen and felt, contracted; a small portion only of intestine appeared; and the bleeding was very inconsiderable; so that we could proceed immediately to the dressing, which consisted of four sutures, charpie, and adhesive straps.

All attempts to re-animate the child proved fruitless, to the great sorrow of the mother, who constantly exclaimed, "this child does not cry like the first," and the disappointment of all present. It weighed fully seven pounds and a half.

The patient possessed her full powers; she was cheerful and happy to find herself relieved from

her burthen. After being placed in bed, she took some soup, and subsequently an analeptic draught. She could not sleep much, but was tranquil. At five in the morning of the following day (24th May) the spasms returned, extending over the whole abdomen, and upwards along the spine to the left shoulder, so as to cause a constriction of the chest. The head was affected; the pulse contracted, irregular, and quick; the thirst considerable; the abdomen inflated, hard, and painful; the lochia did not appear; the wound was dry; and the patient felt uneasy and alarmed. Anodynes were employed, both internally and by friction. Later in the day the symptoms all increased; the tongue however continuing clean and moist; yet hiccough and efforts to vomit came on. In addition to the anodynes, gum arabic, and hyoscyamus, with emollient clysters, were ordered. As the symptoms continued to increase towards night, the clysters had no effect, and actual vomiting took place whenever any thing was received into the stomach. An enema, containing Glauber's salt, soap, and honey, was ordered at 10 o'clock, and sinapisms were applied to the feet. In the night a discharge took place from the bowels, and the whole body became moistened with perspiration; a thin serous discharge flowed copiously from the wound; the urine passed naturally, but the lochia did not appear; hiccough and vomiting continued.

Towards the morning of the 25th, the patient slept a little, and became more composed ; the pain diminished ; the swelling and tension of the abdomen abated, and two motions, which took place without the use of clysters, gave great relief. There was great scalding in making water ; the pulse continued quick, but fuller and not so tense as before ; the thirst had abated, and the head was quite clear. The linen of the dressings being wetted throughout by the serous discharge, was renewed. Still the lochia did not appear ; hiccough and vomiting were greater on taking food ; the composing medicines were continued. A copious lochial discharge in the evening lessened all the symptoms ; the urine flowed abundantly without pain ; the same medicines were continued, and sinapisms again applied.

26th. The patient had slept well ; the pain in the abdomen and chest was nearly gone ; hiccough and vomiting recurseldom ; the appetite increases, the abdomen has subsided, and the spirits are recovered.

27th. Another good night ; the pain almost entirely gone. The abdomen is soft, and only affected at intervals with slight colicky pains. The urine flows easily ; the bowels are open without clysters ; the tongue moist ; the pulse still quick, but regular. The dressings were renewed, and the internal treatment continued.

28th. The patient is nearly as yesterday. Towards the afternoon a kind of erysipelas, like a zona, appeared on the abdomen, with acute burning pain or pressure. The bowels were not open; a clyster was therefore ordered with sinapisms. The dressings were now completely removed. The sutures continued firm, but the wounds made by them were freely suppurating. The wound was again dressed with charpie and broad adhesive straps, supported by compresses and bandage.

29th. Pain lessened; sleep and appetite good; little thirst. The erysipelatous eruption is not so red, hot, or burning; the abdomen is soft; but the patient is troubled by a constant flow of saliva, although no other scorbutic symptoms are present. The lochia, urine, and stools, are natural; the dressing is renewed; the ligatures still hold the edges of the wound together; the same treatment is continued.

30th. The flow of saliva is much increased, the lochia and the urine diminished. The clyster of yesterday did not operate, but the abdomen is soft and free from pain. The erysipelas extends towards the breast, but without increase of pain. Clysters and sinapisms are repeated with the other treatment. The discharge from the wound was less. In the evening, the patient was much depressed, and complained particularly of the increasing salivation, which made the mouth sore,

yet was accompanied with a dry burning heat in the throat and stomach, aggravated whenever food or drink was swallowed. Disturbance of the biliary secretion was at the same time manifested by the yellow tongue, bitter tastes, and frequent irritation to vomit, which however did not proceed to actual vomiting. The pulse continued regular, the fever inconsiderable, the abdomen more inflated, but soft and free from pain ; several aperient clysters had been administered without effect. A mild opening mixture with manna was ordered. Late in the evening the bowels were opened with great relief. The next day all the symptoms were lessened, excepting the erysipelas, which now reached the neck, loins, and sacrum, but had began to desquamate on the abdomen, and lower part of the chest. The bowels were freely open, the abdomen was reduced in size, the discharge from the wound increased, and was accompanied with portions of coagulated blood. Aperients and anodynes were employed alternately.

On the 1st of June there was no change.

2nd. The sleep has been disturbed, with heat and anxiety ; the fever is increased, but without much thirst. The erysipelas spreads, occupying at present the whole chin, and the back down to the anus, and rendering the lying position extremely painful. Several loose stools were procured ; the flow of saliva abated. The tongue is now clean ;

the appetite a little recovered. The wound was clean, and secreted good pus.

There was no material change on the 3rd.

4. The patient is again depressed. In the throat and œsophagus, as well as in the skin, she has so intolerable a sense of heat, that she cannot lie still ; yet the pulse indicates no violent fever ; the tongue is clean and moist ; the appetite deficient ; the stools and urine natural. The erysipelas extends, covering now half the thighs. The back is red, swollen, and burning. The uneasy state of the patient can be easily imagined, with erysipelas over the whole back, and such a wound in the abdomen. Cooling medicines and drinks were continued. The sutures all came away ; the wound had united below, but the edges were still far apart above, particularly in the situation of the old ulcer. The lochia have nearly ceased ; the abdomen is soft and free from pain.

5th and 6th. The erysipelas reached the legs, and extended towards the feet with considerable œdema. The patient was very weak ; strengthening medicines were ordered, together with mild aperients.

7th. The patient is still in a very alarming state, with increasing weakness. The erysipelas reaches the toes ; pustules are observed on the sides of the

back ; and a diarrhœa appears. The most powerfully strengthening means were employed.

8th. Considerable improvement. The diarrhœa has ceased ; the dry burning heat goes off ; she slept quietly some hours. The same treatment is continued.

There was no change on the 9th and 10th. The wound goes on favourably, being quite clean, and suppurating healthily ; it begins to cicatrize at some points.

On the 11th the erysipelas, which for some days had been confined to the lower limbs, again attacked the head, appearing in the left ear and cheek. All the external symptoms in this case have appeared first on the left side, and affected it more severely than the right. No change in the treatment.

12th, 13th, and 14th. The erysipelas passes from the left towards the right side ; and the skin is desquamating.

15th and 16th. Desquamation begins in the face, but the erysipelatous affection is aggravated in the feet, more painful, and with increased tumefaction. The appetite again fails, although the tongue is clean. There are two or three motions daily ; the lochia have ceased. No milk has appeared in the

breasts from the beginning. The abdomen exhibits a degree of tympanitic distension, for which an antifatulent tea was ordered. The wound is clean, and dressed with broad decussating straps to keep the edges together.

17th—19th. Gradual improvement. The swelling has disappeared from the face, and that of the feet diminishes. The distension of the abdomen is lessened. The discharges from the bowels and urine are natural; but the appetite deficient. The treatment is the same.

The case proceeded in nearly the same way to the 24th. The appetite improved; the spirits recovered. The wound heals fast below; but the ulcer remains above as before.

On the 25th the left cheek swelled, and the left fore-arm became œdematous without any obvious external cause. Emollient fomentations removed the former affection, and the latter disappeared on the occurrence of perspiration. The decoction of bark was continued.

We found the whole dressings completely wetted, as if with clear water, without any odour, on the 26th, while nothing appeared in the wound to explain whence the fluid had proceeded. As no unfavourable symptoms appeared, but, on the contrary, the appetite was improved with desire for

wine, which was immediately gratified, no change was made in the dressing or treatment. The watery fluid flowed so abundantly, that the thickest compresses and bandages were completely soaked in two or three hours, and required changing. The patient felt altogether relieved, and was in all respects going on well.

On the 28th, in changing the dressings, we perceived the source of the fluid. It was the spot where the protrusion of omentum had occurred; it seemed to have again given way, and thus to allow issue to a large proportion of the abdominal serous exhalation. Thus a fistulous ulcer is formed. Compresses and adhesive straps are employed to prevent any prolapsus; scarification of the edges, and a suture, will be necessary in the sequel, when the rest of the wound is healed. The daily increase of strength leads us to anticipate this event with confidence.

On the 29th a small portion of intestine appeared at the opening just mentioned, and executed its motions in the usual way, so that they could be easily observed. The watery discharge was less, but the patient more depressed. In dressing the wound, the necessary care was taken to prevent further protrusion. The wound contracts below, and looks perfectly healthy.

Thus the patient went on to the 3rd of July;

when, at the opening into the cavity, points of union appeared between the opposite sides, which led us to expect that cicatrization would take place without any further operation. The patient is cheerful, has good appetite, and sleeps well with the assistance of opium in small doses.

The patient again lost her appetite ; yet the wound went on healing, and the watery discharge was so much lessened, that the cloths were only changed twice a day. The stools and urine were natural, the abdomen not enlarged, and there were no bad symptoms.

In the afternoon of the 7th, acute pain came on in the stomach and left side of the belly, followed by violent vomiting of a greyish black watery fluid. There was great thirst, with moist tongue, uniform warmth of the skin without dryness; the pulse was weak, and the patient very irritable. Anodynes were ordered in addition to the other treatment ; and anodyne frictions were also employed. The night passed tolerably quietly ; the tension of the abdomen did not increase ; motions took place and gave ease.

In the evening of the following day, the symptoms increased, and the treatment was continued ; the vomiting ceased in the night, and the patient felt rather better. Towards seven in the morning

she began suddenly to complain of nausea and great weakness ; and, in spite of the means that could be immediately employed to support her, died tranquilly in about a quarter of an hour.

The body was examined at three in the afternoon of the following day. Much fluid had flowed out of the mouth, and the abdomen was not distended. The wound had cicatrized, except the point which had been previously torn ; this was much reduced in size, and covered by a membrane, so that no portion of intestine or omentum was visible. The whole alimentary canal, and particularly the stomach and cæcum, were violently inflamed with some gangrenous spots. It should seem that when the erysipelatous inflammation had disappeared from the surface of the body, it had commenced in a slow manner to attack the stomach and intestines, causing general weakness and death.

The liver and the other viscera were sound. The uterus was contracted to a small size, and exhibited on its anterior surface an opening about the size of an almond, with a rounded callous edge. This, I conceive, had remained from the first operation, and had allowed the escape of the child in the second labour. In colour, texture, and all other points, the uterus was quite natural. Below and near it was a membranous bag containing pus.

The ovaries were large, but not indurated. The bladder was in a healthy state; the rectum inflamed, like the rest of the intestines.

The pelvis was removed together with the thigh-bones; its configuration explains the nature of the case, and the obstacles which prevented the descent of the child into its cavity. These circumstances are sufficiently illustrated by the annexed representation (See Plate IV.); so that, without describing the particular bones, I shall merely point out the most remarkable deviations from the natural state.

The ossa pubis, which should be placed on the same level with the promontory of the sacrum, are found perpendicularly under it; so that the child necessarily extended the abdominal integuments, by its own weight, into a pendulous bag overhanging the thighs. For the same reason nothing could be felt of the child by examination per vaginam. The sacrum, instead of closing the pelvis behind, by a semicircular curve, which forms a kind of conductor for the child in parturition, stretches nearly horizontally backwards. The form of the os coccygis may have depended on the circumstance that this female did not go alone till eight years old; having previously either preserved the sitting position, or contrived a kind of awkward motion upon the nates.

The ilia, the spine, and the thigh-bones, bear the strongest marks of rachitis.

The shortness of the thighs in proportion to their size, and the shortness and curvature of the legs, occasioned this patient to appear extremely short when standing, although she seemed a well-sized person in the sitting attitude.