

Emphysema.

1856. Aitchison

One of the Complica-

tions of Parturition

The subject of Emphysema is one which so far as I know, has never as yet been treated of, in a full and appropriate manner, in any work on Midwifery - The latest writers, as for instance Ramsbotham, Churchill &c. do not allude to it at all, whilst some of our earlier authors as Pagan, Blundell & Davis, merely mention its existence, and say that cases had occurred in their own practice, without however doing more than alluding to them in the most cursory manner, and that without giving any plain and distinct directions regarding the proper mode of treatment.

The object of this paper then is, Firstly, to make a collection of cases, of this complication of Labour, which have occurred in the practice of various Practitioners, and Secondly, by subjecting them to a scientific examination to

endeavour to ascertain the true nature
of the disease, and the mode of treatment
most advisable to be adopted when
it does occur

Emphysema post. Partum.

Case I.

A woman, at 25. was taken in Labour in the evening of April the fourth, and the parts being very rigid, blood was taken from the arm several times. Between that and the 7th, when she was delivered of a still born child, immediately after delivery, a violent paroxysm of coughing came on, which threatened suffocation. At noon of the same day, about ten hours after this paroxysm, her face and neck were observed to be much swollen. The swelling diffused itself over the trunk of the body - and causing great alarm in the minds of the friends, A sensible crepitus was distinct in the parts. The cough was still troublesome, and the breathing somewhat oppressed. Some aperient and antimonial medicines were given, and in three days the swelling, crepitus, and cough, had almost ceased - From this time she had no relapse.

Medico-Chirurgical Review - Vol V.

A young woman, at 19. of a sanguine and nervous Temperament, had a sharp attack of Peripneumonia, during the first few days of the seventh month of her accouchement - On the second of September 1819. The seventh day of her malady, The pains of Labour came on, and were present for four hours. They were accompanied with very strong cries. and soon after, an emphysematous tumour diffused itself over the upper part of the Thorax - A Physician, was called in twelve hours after the birth of the Child. and when he arrived. he found the patient in the following condition. The ~~whole~~^{head} ~~body~~ was greatly enlarged. The ~~surface~~^{face} was of a violet colour, as also was the neck. which was considerably tumefied. The chest, and the Lungs (superior) were equally so affected. and over every part the swelling presented the characteristics of Emphysema. The Opresion caused by its presence very great. and the suffoca-
-tion seemed to be immediate, A large

quantity of blood was removed from
 the arm. and four hours after this
 bleeding was repeated. after which the
 respiration became less laborious. and
 for some time the emphysema diminish-
 -ed, the head and face regained their
 natural volume and colour. but the disease
 was not totally removed from the surface
 of the ribs. The discharges did not
 come away. the abdomen was very sens-
 -ible to the touch. and all the organic
 lesions were in connection with the head
 and the heart. Two leeches were applied
 to the vulva and the general bleeding
 was again had recourse to after the
 expiration of twelve hours - under the
 influence of the leeches the Lochies. did
 run again abundant - and the violence
 of the oppression was lost - on the morning
 of the tenth. the malady had abated.
 her tongue was dry. her pulse frequent &
 soft. The puffiness at the neck was
 arrested. and the skin which had
 recovered its former appearance, was of

The same level as the normal condition of the body - a large sinapisme was placed upon the breast. and the tumified parts were covered with bandages, soaked in "vin aromatique" on the eleventh. Thirteen days after the delivery, the condition of the patient was merely ameliorated. The respiration was free, she could change her position now from one side to the other. her tongue was moist. she was thirsty but did not make known her wishes quickly. she was always churning, and the lochies were not present again. Another application of leeches was made upon the vulva. The compresses dipped in aromatic wine was continued, and she was prescribed, barley water, for her drink, some hot, and some spoon-fuls of wine. On the ~~14th~~ twelfth the emphysema was disappearing by degrees. The respiration was again entirely free. The pulse of natural condition, and the discharges took their usual course. The

secretion of Milk was established, all
the other all the functions in the order of
nature returned, and Convalescence
Commenced -

Archives g n rales de M decine
Vol XVII. p 428. Year 1828.

Case III

A young woman, about 17. years of age.
of a full habit of body, and florid
countenance, while endeavouring to
conceal the pains which precede labour,
suddenly lost her voice, and in a
short time her face became swelled
in a wonderful manner, A Tumour
which cracked under the hand, was
quickly diffused over the whole head,
neck, and thorax. Her eyes were
completely shut, and the features
of her face very much deformed.

Her respiration was quick and
labourous, pulse full, and quick.

She complained of no particular
pain or uneasiness, but her mind
was anxious and she was very much

frightened about what had happened to her. When I was called to her, I ordered a vein to be opened, and took away a considerable quantity of blood in a full stream; I also directed the tumefied parts to be rubbed with Ol. Camph. twice a day. For about a week the belly was kept open with Laxative medicine and she took and opiate at bed time.

During this time the swelling began to give way, and in proportion as the emphysema disappeared she recovered her voice. About three weeks after delivery she left her lodgings, and went to another part of the town. I (Dr. Hamilton) saw no more of her for two months. When she accidentally came in my way, and even then the emphysema could be perceived on her neck and breast; for when pressed, the crackling noise was still distinct. Her features were quite natural, however, and she enjoyed

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perfect good health.

Observations on Emphysema, by
Andrew Halliday - 1807 - page 46.

Mrs. J. Inmay. The wife of a watch-maker in Chancery Lane, a strong and healthy young woman, in the course of a tedious and uncommonly severe labour, forced a quantity of air into the cellular membrane of the neck.

Her whole face and neck, and the upper part of her body were enlarged: her eyes were inflamed, and her eyelids so swelled that for some time afterwards she could with difficulty open them. The space occupied by the emphysema might be covered by a hand, and the centre of it was about the point where the right clavicle joins the sternum. It was not perceived till the day after the patient was delivered, but the crackling occasioned by pressing any part of that space left no room to doubt

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What the tumour contained. It occasioned but little trouble or uneasiness, and was entirely dissipated within two or twelve days.

Medical Communications, vol. I.

page 176 —

The subject of this case was a small Case V woman, 25. at. and this her first labour. The whole pelvis (and the arch of the O. pubis in particular) approached to that of the male. And the external parts were remarkably small and rigid. Notwithstanding the most violent and quickly-repeated pains, the child was not expelled till full seven hours after the complete dilatation of the O. Uteri; its head was wonderfully elongated, and all the means of recovery were ineffectual - In the moment of its expulsion the woman, with inexpressible terror, exclaimed "I shall be suffocated"

I hastened to the other side of the Bed. when I was struck with her appearance
= came

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Which was entirely altered, her face,
neck, and breasts being inflated to an
amazing degree -

The emphysema of the upper
and lower part of the neck made, no
pressure, the crackling noise which
characterises this affection; but the
emphysema of the face and the
breasts was perfectly hard and un-
yielding. I instantly bled her freely,
which immediately relieved the sense
of suffocation, and in some measure
diminished the inflation of the face.

She was, nevertheless, unable to open her
eyes till the fourth day -

The whole swelling subsided very gra-
dually, and was entirely gone in about
a week, but the crackling noise was
plainly felt, for nine or ten days,
just below the clavicles; indeed there
was air, in small portions, perceivable
in the cellular membrane of the arms
for many weeks afterwards - Frictions
with oil was recommended from the moment

of the attack.

The placenta came easily away in about half an hour after the blood was drawn: The patient took a gentle purge on the second day after delivery, and another on the fourth: she had no milk fever, nor any other symptoms to retard her recovery -

If the bleeding had not given such instant relief, the urgency of the symptoms would have led me to attempt it, without loss of time, by incisions, as practised by the late Dr. Hunter (and long before, in an instance related by Paris) in a case of emphysema described in the second volume of Medical Observations and Inquiries -

It afterwards appeared that my patient had, for some hours, buried her face, during every pain, in the woollen coat of a woman who sat on the side of the bed -

I beg leave to observe, that I have since attended the same person in three

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Labours, and that, although they were
all of the laborious kind, nothing
empysematous occurred in either of
them -

Medical Facts. Vol I. p. 48.

The subject of this case, was a delicate Case VI
Lady, in labour with her first child.

The labour had continued about 50 hours
when Dr. D - found the patient straining
violently with the idea of soon finishing
the labour. The labour went on favourably
and delivery took place in nine hours -
The Lamentation was very considerable
and some difficulty found in restrain-
-ing it. About a quarter of an hour
after the placenta had been discharged,
she complained of great difficulty of
breathing. And Dr. D - was astonished
at seeing her face, Throat & chest swollen
to three times their natural size, and
of a bright scarlet colour. She also
complained of great pain in the
throat, about two inches above the

Memum, and the difficulty of breathing
 seemed rapidly to increase, on
 putting his hand on the throat. M. J.
 very distinctly felt a crackling, and could
 easily hear a peculiar noise, and on
 subsequent examination he was satisfied
 that she had ruptured her trachea by
 her injudicious straining. Pulse 110:
 Venesection to thirty ounces: two large
 issues of blood were lost before breathing
 was relieved. In about twelve hours,
 the pain in the throat and difficulty
 of breathing having much increased, she
 was again bled to sixteen ounces, with
 much relief. On the next day the swelling
 had almost disappeared, she breathed perfectly
 well, and could draw a full inspiration
 without the slightest difficulty. From this
 time she became convalescent, and her
 recovery was rapid —

London Medical Gazette, Jan
 1845. Vol II. page 1178 —

Emphysema ~~post Partum~~ -

In the following case, it was the first em- Case VI
 phyma of the patient. The first stage being
 tedious, some tartar emetic was adminis-
 tered, according to the practice of the
 hospital, with the view of bringing about
 relaxation of the O^{v} uteri. The second
 stage was more rapid; just as the child's
 head was beginning to press upon the
 perineum, the patient's face and neck
 were observed to swell, and she compl-
 ained of some tightness of respiration.

The face, neck, chest, and arms,
 almost to the hands, were found to respi-
 tate upon pressure, and the sides of the
 neck were resonant upon percussion; there
 was some tenderness on pressure above the
 clavicle. The patient was immediately
 tied to $\frac{2}{3}$ XV , and being soon delivered
 (by natural efforts) the farther increase
 of the effusion of air was prevented.

Had the child not been soon expelled
 it was the intention of Dr. Johnson to
 apply the forceps. Auscultation & Percussion

of the Thorax revealed nothing abnormal. so that there was clearly no effusion of air into the pleurae.

The patient slept soundly during the night as if nothing had happened. Her recovery was in every way favourable. She left the hospital on the ninth day, the swelling having then entirely disappeared, and with it the tenderness about the clavicle -

American Journal of Medical Science

Vol. ~~XXIII~~. page. 281. Year 1852

The patient was a lady who had been attended in three previous labours, which presented no unusual circumstances. The fourth labour was more than unusually difficult. The child was large in proportion to the stature and the size of the pelvic capacity of the mother. and the head presented with the face towards the pubes. During several hours there was strong uterine action, accompanied by powerful auxiliary abdominal efforts.

Case VIII

with some, but not commensurate progress of the fetal head. The strength of the voluntary efforts were such as made him apprehensive that some mischief might be produced, and emphysema began to show itself in the neck & face of the patient. During every pain the paroxysmal efforts continued to be violent, and the emphysema gradually increased, until the cellular substance over the clavicles, the upper part of the mammae, the neck and face, was very considerably inflated. The eyelids had become so distended as very nearly to close up the eyes. The appearance of the symptoms had become quite formidable, and at each pain the distension increased so rapidly, that Dr. Chowne did not deem it prudent to trust any longer to the efforts and strength of the patient -

Although the head of the fetus was high in the pelvis. He applied the forceps and, by their assistance, accomplished the birth of the child. The placenta

was removed after a short time. Saline medicines were prescribed. The ordinary precautions used. And the convalescence was, in every respect favourable —

No treatment was adopted with especial reference to the emphysema. Which gradually diminished; and, although for four or five days after the confinement very obvious crepitation, on pressure with the finger, was perceptible, over the clavicle and adjacent parts, as also in the face, by ten days after delivery it had totally disappeared —

The Lancet. Vol II. page 283.

Year 1839 - 1840 -

The patient under my care, a stout Irish-woman, disposed to clamour and to make violent efforts, was in a former labour. Case IX

attached with the laceration of the trachea or bronchus, recovering on both occasions without a single bad symptom. The second time she was delivered by the help of the long forceps.

Blundell's Obstetrics

page 474. year. 1834 -

A. W. at 20: delivered of her first child Case X
 August 30. 1842. after thirty seven hours
 labour. Towards the conclusion of the
 second stage, when the head was beginning
 to press upon the perineum, she became
 emphysematous in the face, neck, and
 shoulders. The pains at this time being
 strongly expulsive. Respiration soon
 after became very much impeded, requiring
 the abstraction of some blood from the
 arms; by this she was greatly relieved,
 and in half an hour the child was born.

7 was the time of her delivery. The emphysema
 gradually subsided, and her recovery was
 uninterruptedly good, inasmuch that she was
 able to go home on the ~~seventh~~ eighth day,
 at which date the cephalic ^{but} disappeared at
 every part except a small space on the
 back.

Case No. 44. page 98. in
 W. Clincks and Hardy's practical Obs. &c.

M. D. at 20. Just labors; admitted June 20. 1846. This was a male, but well made healthy woman. Matters progressed slowly, and the face, which was the presenting part, was not on the perineum for 20 hours. At this time the pains were strong, but did not cause any advance of the head. It was now remarked that the left side of the patient's neck, and face, had become quite emphysematous. The fatal heart was aneurism. In two hours after it was thought prudent to accomplish delivery with the forceps - as the emphysema was increasing, and no progress had been made in labors.

The child a girl, was born dead. The following day she was bled to 12 oz. and got small doses of blue pill and speacuanha powder. She eventually recovered well.

Though for some days the pulse remained at 100. The emphysema had entirely disappeared on the fifth day. She was delivered of her second child May 3. 1846. Her labors were short and easy, and she

was thus quite free from any pulmonary affection -

Care No. 257. page 120. in Dr. Clinton and Hardy's practical &c.

C. K. at 29. first pregnancy. Upon admission into Hospital her state was the following: The Or. uteri was fully dilated, the waters discharged, and the head occupying the pelvis; foul discharge from vagina; retention of urine. frequent pulse, and tenderness over uterus.

She said, she had been for two days in labour, and her symptoms agreed with this statement. The most careful auscultatory examination failed to detect the fetal heart, although the placental bruit had its normal character. The feel of the fetal head was such as to lead me to believe that the child was putrid, or nearly so. A short time after her admission it was observed that her face, neck, and chest, were slightly emphysematous, and, in consequence of this

and the other symptoms, she was delivered with the perforator and Crochet.

The child, a female, was perished. This woman recovered well, and in less than ten months after being discharged from the hospital she returned, and gave birth to a full grown living fetus. Her second labour was short and easy.

Case. No. 259. page 132. in
Dr. Clitock and Hardy's Medical Obs &c.

Case at 26. in her first labour. The presentation was the vertex, and patient was in labour 35 hours. Child, a girl, was born alive, and by the natural efforts only. Its birth was retarded in the 2^d. stage of labour, and the mother suffered from emphysema. But died weeks after delivery -

Case XII

Case 138 in journal Rébelle. & page 94. in Clitock and Hardy's practical observations on Midwifery -

" I have myself seen four such cases and they all occurred in the midst of a tremendous excitement of the heart and Arteries. I had no hesitation in saying recommending very copious bleeding which in every instance afforded the most marked relief. Three of these patients were delivered without mechanical assistance. In the fourth the forceps were introduced to improve the position of the child's head. in the pelvis, and then withdrawn. All were born alive. The mothers recovered perfectly satisfactorily. and the emphysema vanished rapidly. without the necessity of puncturing the integuments "

From Case

XIV

to

XVII

—

Davis Operation Indwifery.

1825. page 83 -



On the 9th of November, between five and six in the afternoon I was called in a great hurry, to see a woman taken very suddenly ill. On entering the house I found a woman in labour. She was 25 years of age, and it was her first labour. A gentleman was in the act of bleeding her, and the persons present were piteously bemoaning her situation. The patient herself was taking leave of her friends expecting her last very moment. Having with difficulty procured silence, I demanded the cause of my being sent for. The Midwife and the Gentleman together declared, that the cause of their apprehensions was a swelling of the face that had come on instantaneously. That labour had commenced at 8 o'clock, in the morning, but little or no progress had been made, and that if the woman was not delivered instantly with the forceps she would inevitably die - I immediately examined, and found every thing as I could have wished. The os tincæ was third dilated and the presentation perfectly natural - Instantly I told the patient to take courage

Case
XVIII

That there was not the least cause for alarm. That the swelling of the face would subside upon delivery being accomplished. Which would be in less than an hour, as every thing about her was in the state that it ought to be. Upon a little observation, I found her now acting on the belief that her own voluntary efforts, were to propel the child - Accordingly she made the most gigantic exertions not only during labour, but after the pains had entirely gone off -

To this I attributed the protraction of labour, and the swelling of the face -

The midwife indeed, now informed me, that for the conduct of labour, the patient notwithstanding every remonstrance & direction, had behaved in the most frantic and ungovernable manner, putting herself in attitudes the most unlikely to facilitate delivery, and acting altogether in the most preposterous manner -

— — — — — Delivery being accomplished, the tumescence of the countenance instantly and visibly subsided

A circumstance that led me suppose. The
 observations of the attendants not very accurate
 as to the time it took place. Indeed I
 had hitherto paid no attention to any thing
 but delivery. Thinking that the swelling of the face
 was the consequence of great & long continued
 exertion, at any rate. Labour by the course,
 delivery, removing that cause, demanded primary
 consideration. As soon therefore as the
 placenta came away, I left the patient in
 charge of the Midwife. but I was not gone
 more than 20 minutes. When I was sent
 for - I found the patient sitting, as at first-
 sitting. Throwing about - The countenance was
 now much swollen, but especially the
 upper eyelids. Pointing to the Bronchia
 she complained of a sense of suffocation,
 of swelling about the neck, and pressure at
 the right side of the thorax, towards the
 upper & back part - I took her right and
 the full in palm, when I was astonished at
 the sub manue crepitans - which I distinctly
 felt. The whole arm, the shoulder, the
 neck, and face. The only parts as yet

affected, exhibited the same unequivocal
 symptoms of emphysema. The upper
 eyelids pressed so hard upon the eyes as
 to occasion pain, I made in a night
 punctures in them, from which, in a
 very short time, so much air was
 extracted, that the patient declared
 she could look up. I now endeavored
 to convince her of the necessity of
 perfect rest and quietness, directed
 her never to move but in the most
 slow and cautious manner, and
 not at all but when she could not
 avoid it. and never to make an
 exertion that required a full inspi-
 ration. Accordingly I did not exhibit
 an opiate, as her bowels were not
 previously cleared, but reduced a
 gentle dose of Castor oil, which was
 not given her. Next morning the
 tumefaction of the countenance was
 not increased - The sense of suffoca-
 tion had abated, The air had in-
 spired a little way only down

The Throat, to the elbow of the left
 arm, and to the finger ends of the
 right - but there was no visible trans-
 -action of these parts - A moderate
 dose of Castor oil was ordered. In the
 evening the face was visible regaining
 the natural appearance - The physic
 had operated gently - Next morning
 the countenance was much amended,
 the original pain at the top of the chest
 was not felt, and ~~the~~ no more air
 seemed to be opposed, I declared
 the patient to be in a hopeful state,
 but the precautions formerly inculcated
 should be observed for some days
 longer, I was now desired to put
 in my will, which hint I under-
 -stood, and therefore to the directions
 formerly given, added that of frequently
 using friction with flannel over all
 the emphysematous parts, I did not
 see my patient again, but was in-
 -formed by the midwife that she con-
 -tinued to mend steadily, without the

least accident occurring. That after
 every sleep, and profuse perspiration,
 there was a visible relaxation of ap-
 pearance, and that on the twelfth
 day of delivery, she undertook a
 journey to the Highlands —

Edin. Medical & Surgical
 Journal Vol VII. page 174. year 1811—

On the 9th of April 1851. I was sent Case
 for about 7 p. M. to attend Mrs W. XIX
 at 25. in Labour with her first child.

Upon making an examination
 during the pains. I found the O. thin,
 and related to the size of a shilling.
 The labour was slow and tedious
 the child's face being towards the pubis.
 About 4 p. M. during a severe expulsive
 effort when the child's head was en-
 tering the perineum, the patient
 suddenly called out that she could
 not see. On examining the face,
 neck, and anterior part of the thorax
 I found that they were completely

emphysematous. Scarcely the occurrence of another pain to increase the tumor. The head by this time being near the outlet. I applied the Forceps. and delivered the child, which was a healthy female.

Though the appearance of the emphysema alarmed the friends of the patient very much. yet she herself stated that all she felt, at the time of its occurrence, was a slight difficulty of breathing. and the swelling having closed her eyes she was necessarily blind. but in reality there was no danger, because in the course of eight days. all traces of the emphysema had completely disappeared, with the use of gentle laxatives. The patient completely recovered - & I have since attended her when she felt not the slightest inconvenience -

Robert. Lock. Surgeon.

Edin. Medical & Surgical Journal. 1855
August - page 152

Alice Murphy - at 25. This was her
 first labour, and she has had no
 previous miscarriages. Labour had conti-
 nued from four in the afternoon, on
 Thursday the 18th Nov^r, till five the
 next day. The first stage having been
 completed at 2 P. M. and the principal
 tumour fully formed, when some swelling
 of the cheeks was noticed, the patient
 stating that she herself noticed it then
 for the first time, soon after the
 left eye was closed, by swelling and
 raising of the lower eyelid. No
 particular notice was taken of this
 condition till about six o'clock, when
 the attending clerk, placed his hand
 upon the cheeks, and felt the
 distinct crepitation of Emphysema -

It should be here mentioned that
 the patient had been, throughout the
 labour, particularly assiduous in ex-
 citing herself in voluntary impulsive
 efforts, and resorted on several oc-
 casions to the expedient of stuffing

Case

XX

The sheets into her mouth. To pre-
 vent expiration during a gain-
 and help to fix the diaphragm —
 The head at this time, in which
 was being pressed against the outlet.
 and the emphysema was extending
 down over the chest — when about
 seven chloroform was administered, which
 prevented the voluntary inspiration efforts,
 which had been unusually determined,
 and the increase, of the rapidly ex-
 tending emphysema — Owing to
 a slightly abnormal projection of the
 spines of the ischia, it was feared
 that it would not be advisable
 to allow nature to deliver the
 patient — Dr. Graham Weir. was
 accordingly sent for. but as neither
 he nor several of the other consulting
 Medical Officers could be obtained,
 At last about 10 O'clock. Dr. Moir
 came, and the patient having been
 allowed to awake from her state
 of anaesthesia, she succeeded with

some encouragement, in delivering herself at half past eleven -

At the time of delivery the emphysema had extended up the face to the fore head, completely round the neck, down over the sternum, and mammae. as far as the superior edge of the epigastrium - and downwards from the back of the neck to the last dorsal vertebra - Percussion over the chest gave dullness where the emphysema was marked. but auscultation revealed nothing -

October 20th evening - The patient has enjoyed several short sleeps. complains of some pain over the trachea - The emphysematous swelling is not so great - but the crepitation extends down to the level of the sternum. She cannot pass her water, and has pain in the back, and perineum - The pulse is 110⁰ - Twenty ones

of urine were drawn off by the
Catheter, and the following was
ordered - Tinct Spi \mathfrak{M} $\overline{\text{XXV}}$. Mist Cuph
 $\mathfrak{z}\mathfrak{j}$ - \mathfrak{M} - stat -

October 21st. Puls mac. com.
Intubula. Pain still continues in the
neck, for which she was ordered to
have linseed poultices applied -
Still pain in the perineum, which
is found to run nearly back to the
anus - Puls 100 - Urine still
requires to be drawn off with the
Catheter. ordered. Potass Bitart $\mathfrak{z}\mathfrak{j}$
Sp. Actus. Nitrici. $\mathfrak{z}\mathfrak{i}\mathfrak{j}$ - Aqua $\mathfrak{z}\mathfrak{j}$ $\overline{\text{XX}}$.

October 22nd. The pain in
the neck has been relieved by the
poultices - Emphysema Anody dis-
appearing. Pain in the perineum &
inability to urinate water still
continues - The poultices to be
continued - ordered - Tinct Ferri
Muri $\mathfrak{z}\mathfrak{j}$. Sp. Actus. Nitrici $\mathfrak{z}\mathfrak{i}\mathfrak{j}$ - Aqua
 $\mathfrak{z}\mathfrak{v}$. Summit $\mathfrak{z}\mathfrak{j}\mathfrak{ss}$. Ther in die -

October 23rd. Pain in neck.

and Euphysma disappearing -
 patient has gained a little weight -
 Repeat the dose & Nitric ether.

June 90 -

October 24th. Still progressing
 favourably -

October 28th. Euphysma has
 quite disappeared, and patient en-
 joys herself as quite well. Though
 still weak -

Nov. 2nd is now ready to
 leave the Hospital -

This case
 as also the following occurred in
 the Maternity Hospital, here. During
 this last Autumn - and through
 the kindness of Dr. Graham Davis, I
 have been able to include them
 in this collection of cases -

Mrs. Redcliffe, at 19. This her
 first labour. Labour commenced
 October 27th at 2 p. M. The first
 stage was completed October 28th at

Case

881

2 P. M. Second stage completed at
 3 P. M. and the third stage was
 completed at a quarter past 3. P.
 M. - Child was Male. Born alive.
 weighed 6 lb. 7 oz. and 19 inches in
 length. The head presented in the
 first position -

Patient had been nearly twenty
 four hours in labour, in the first
 stage - and the second stage had
 just commenced when she became
 very restless. Cried out during the
 pains - and did not exert herself
 in bearing down to aid the expul-
 -sion of the fetus - She was then
 persuaded to retain her breath
 during the pains - by holding out
 the hope that by so doing she
 could thereby more speedily ter-
 -minate her suffering, and she soon
 applied herself vigorously to the
 task. even to the extent of stuffing
 the bed clothes into her mouth to
 prevent inspiration - The head now

began to make more sensible
 progress through the passages. Shortly
 after, the eyelids were observed to
 be swollen, and soon she complain-
 ed of being unable to see - It
 being now suspected that this might
 originate from emphysema. As in
 the previous case which was not
 yet out of the hospital, the swelling
 was examined and such was found
 to be the case, the head was now
 beginning to press upon the foramen
 and gradually advancing, and as
 no cause of further delay was apparent
 she was allowed to continue her
 efforts, and as soon as sufficient
 advance had been made Sir
 Priding Cudd's plan was followed
 i. e. that of assisting the head through
 the internal parts: by entering the
 fingers into the anus. Hooking the
 Childs Chins. Pressing the head for-
 wards - The cure by this means ter-
 minated speedily - and the third

Stage was likewise speedily and safely got over - The emphysema in this case was found to have extended up the cheeks up to the forehead, downwards, over the mammae reaching to a level nearly with the lowest part of the sternum; it also extended round the back of the neck. The skin of the neck was rendered very tense by the effusion of air - In the evening

The patient complained of considerable pain about the neck, and there was a slight red blush about the root of the neck, to the right of the trachea - Pulse 80. - does not complain of any other pain

The next day the 29th she complained of the pain in the neck, as being more severe, she had some difficulty in breathing, and the blush of redness has become considerably more distinct - Pulse full and 112 - ordered

amputation to 10 5/8.

30th Breathing somewhat easier - Pain in the neck less severe, swelling slightly diminished, and redness not extending, complains of a troublesome cough - which hurts the throat. R. d. d. Tinct. Opii. Camph. ʒj. Sumat. h. a. somni -

31st All the symptoms improved but the redness is still persistent, R. d. d. acetate of lead and opium lotion, applied to the part -

Nov. 1st Still improving redness beginning to disappear -

Nov. 2nd Cough again a little troublesome, R. d. d. pulv. Iruin ꝑ. ʒ. Sumat. h. a. somni -

3rd Cough more easy now and accompanied by a mucous expectoration, slight pain, in the left side of her chest. Auscultation reveals Rhonchus and Sibilant. sounds over a portion of the left lung -

To apply, eight leeches over the top
of the sternum -

Response. Cough diminished
expect. Sput. Down -

2nd Bronchitis nearly dis-
appeared, and while the leech bites
were bleeding the emphysema about
pudding has diminished, to a very
marked extent - The redness now
is very faint -

3rd Feels sick, pulse quick.
and full. Tongue furred - The
boards being full of patients had
become close - and the ventilation
was not sufficient - she was re-
moved to another ward -

6th The removal has
had the desired effect - she is quite
well now - except slight soreness of
the throat - and traces of emphysema

9th Now dismissed
quite recovered -

At no period of this case could
any pulmonary lesion be ascertained,

except during the continuance of
the Bronchitis —

It is through the kindness of Dr. Graham Bin.
that I have been able to obtain three last
two cases, which occurred during last summer
in the wards of the Maternity Hospital of
this City —

But before entering upon the second
part of this paper, I would first of all
lay before you in a few paragraphs,
etc., that has been said regarding this
disease by various authors —

" Various accidents occur to women during
parturition, and these differ according to
situation. A woman who makes violent
efforts of expulsion, and suppresses her voice,
or holds in her breath, may become
affected with emphysema of the back
and of the chest. This arises from rupture
of some part of the trachea. The disease
thus appears spontaneously in a few days;
but in some cases punctures become "

Necessary" —

Byans Midwifery 1831 Page 509.

"Empyema, from the rupture of a part
of the bronchial structure of the lungs,
during Labour, is an accident to be
imputed exclusively to extreme severity of
Labour pains - I myself have seen four
such cases, and they all occurred in
the midst of a tremendous excitement of
the heart and arteries, I had no
hesitation in recommending very copious
bleeding; which in every instance aff-
orded the most marked relief, Three
of these Patients were delivered without
Mechanical Assistance, In the Fourth
the forceps were introduced to improve
the position of the Childs head in the
Pelvis, and this with success. All were
born alive, The Mothers recovered gra-
dually & satisfactorily, and the Empyema
abated rapidly without pinning the
intestines"

Davis's Midwifery, 1825. Page 63.

"It is not unfrequently that a disimp-
 -ction of the larger air tubes, occurs in
 the progress of laborious parturition; yet
 this accident is sometimes observed, the
 placenta or umbilic joining may, after much
 exertion, the neck and face swell, from
 the hurrying of the circulation, an erythem-
 -atous flush of the integuments is produced,
 and at first glance the patient appears
 to labour, under a certain attack of
 erysipelas, The glabrous nature
 of the swelling, manifesting itself on making
 an examination, by the usual erysipelas,
 perceived on compressing and lightly shav-
 -ing the skin with the tips of the fingers:

Should erysipema occur delivery is
 desirable. To retain the placenta, and
 force down, is likely to aggravate
 the disease, so that the emission of the
 same may be recommended -

After the delivery, if I may
 judge, from the single case brought under
 my notice, the aperture, seldom
 capacious, heals rapidly - and without

inflammation the air is absorbed"
Blundell's Practical Gynaecology.

The first point to be inquired into in regard to this complication of Labour must undoubtedly be, "What are the causes by which it is produced"

Upon examining the several cases which I have transcribed, it will at one glance be perceived that the great majority of the cases, have occurred in first labours. We must remember that all first labours are much more difficult (we are speaking of natural labours) than subsequent ones —

And why so? Simply because all the passages through which the child has to pass, in a first labour, are in a state much more difficult to dilate and require to be dilated to a greater extent, than they do, in a second labour.

For after the first labour, they do not regain completely, that firm elastic state, which formerly was regarded.

as one of the signs of virginity - but
 remain in a comparatively relaxed condition, ^{and} for
 and do not therefore require to be distended
 so greatly at the second or third labours.

Less mechanical force therefore is necess-
 -ary, because it is chiefly during the second
 stage, and whilst the head, is passing
 through the external parts. That mechan-
 -ical, or in other words muscular force
 voluntarily supplied by the Mother is
 of importance - Now the Muscles that
 give force, and assist in parturition,
 during a pain, called downbearing, are
 those in connection with the respiratory
 system, namely the Diaphragm and
 abdominal muscles.

The former is first fixed, by means
 of a large inspiration of air into the
 lungs, and then the abdominal muscles
 with the assistance of the Diaphragm
 press down the abdominal tumour,

But suppose that the tumour will
 not yield, and an immense amount of
 pressure is by means of muscular force,

is applied to it, this force will react upon the weakest point of structure -

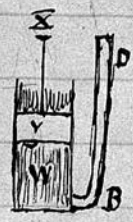
This is well exemplified in the case, where, the uterus a muscular sac, can not expel its contents, in the direction it ought to do. When such is the case, its structure gives way at some one or other point & thus we have a "Ruptured Uterus" -

So it is, in the case, which we have supposed, some point of structure must give way. The Diaphragm being as it were fixed down, by a large amount of inspired air, if that air could from the first get itself, the force or pressure applied by the Diaphragm, and partly the other muscles, would be at once removed. The Mouth however being closed, against all expiration, as ~~the~~^{is} seen to have been in the case with Cases No. 5, 20, & 21. Which I have transcribed, it will of course be the weakest tissues that will yield - This seems apparently always to be some portion of the structure.

of the lungs, and a rupture having
taken place there, an exit is at once
formed, during a pain. In the compressed
air contained in the lungs -

In this way the force that had
been applied to the tumour by the
Diaphragm with the immediate aid
of the compressed air, is gradually
withdrawn, as that air escapes into the
cellular tissue, which is at once pushed
compressions to a greater or less extent -

The Mechanism of Labour in this
state, especially if the Emphysema be
of rapid development; may be illus-
trated in the following manner. It
seems to me to be exactly like a pump
with one of its valves out of order, and
therefore incapable of performing its
work. Thus suppose W. to be
water, which it is necessary to raise
to D, and which is analogous to the
Lobes, which must necessarily be expelled
from the body of the Mother. The piston
V. has a valve, which has let the water



W. Come into its place, but does not permit it to pass back again. Now if a force be applied to V, which is analogous to that applied to the abdominal tumour. The water W makes its exit up the tube B to D.

But suppose a stoppage of some kind or other takes place at B, which is capable of resisting the force of X.

And suppose the valve V to be the weakest point, and makes the greatest resistance at B. The valve must ultimately give way, and all force applied at X to drive W into the tube B, D. will be lost. Because W will pass through the valve at every application of force —

So in the analogous case of the gatus, it cannot give way of the acting power of the respiratory set of muscles, be capable of being expelled —

~~The valve~~

In addition however to the actual
Mechanical force, which produces
this state of affairs, a great deal de-
pends on the conduct of the female,

Care XVII

throughout the various stages of labour.
Of course all accoucheurs meet with
very tedious and laborious cases of
parturition, as for instance when we
have the femur head presenting, towards
the Pubis, and others. Such cases are
not always first labours. Yet emphysema
is very rare, except in first labours -

Is not its absence then difficult
and tedious, second or third labours.



to be accounted for, by the more
proper carriage, and calm state of
Mind and Body of the Patient -
Who apparently from experience knows
what really assists her in her labours, and
who only at the proper time and in
a proper manner, makes such use
of her muscular force, as will really
hasten on the labour, instead of
impeding it. By using muscular force

at a time when it is unnecessary
 in a way that would be injurious —
 That it is the immediate application
 of the Respiratory system of Muscles. That
 is the primary cause of this species
 of Emphysema. There can be no doubt.
 As we do occasionally meet with it, though
 rarely, in Cases when a person has been
 greatly affected with diarrhoea, and when
 it has been caused by continued Snow-
 bearing, and shivering, at stool. In
 Children suffering also, under fits of very
 violent Coughing, attended upon such
 Diseases as Hooping-Cough, Croup, &c. &c.
 and during which muscular Paroxysms
 are so often called into play, we not
 infrequently meet with Emphysema, apparent
 over the neck and the clavicles. In
 such Cases however, it is seldom developed
 to any great extent. Indeed in these
 and similar Cases, it may be influenced
 to an extent, from a diseased condition
 of the Bronchial + Lobular structure
 of the Lung. —

In one of the cases, occurring during Parturition, which I have quoted, it was " ushered in by a violent paroxysm of Coughing". In this case it would be difficult to say, whether its real presence was due, to the fit of Coughing, as is in all the other cases, to the various reasons assigned for its presence in the Parturient female.

The presence of emphysema may also be greatly influenced by a custom, which is not a very uncommon one, namely, that of stuffing the clothes or part of the blankets into the mouth, and thus preventing any possible exit of air from the lungs during the presence of a pain —

That it is from the rupture of some portion of the lung structure, that this condition arises, cannot be doubted —

But which portion of the Lung structure is it that yields, is the question to be solved. 9.

We have no facts given to us bearing upon this subject, either by the Pathologist, or

Case
V. XX. XX

The Anatomist, seemingly because the cases in which the emphysema occurred in a parturient female, have all recurred. In one private case in this city the patient was suffering from phthisis & during the paroxysms of the emphysema died, but no post mortem was allowed.

We must therefore make our diagnosis from the external appearances. From the direction of any pain, and from symptoms in general, as to what part of the lung has expanded. But we suppose we did know, the actual part at which, and structure in which, the rupture had taken place. it would be of no avail to us, as we could do no more for the local and beneficial treatment. The one at present do in any case of emphysema - In some cases we perceive the emphysema has been supposed to be owing, to a rupture of the Cavern Branch, in another part. due to the giving way of some of the lobular structure - In either case

The fresh air insinuates itself into the cellular membrane that surrounds these structures, and gradually makes its passage upwards to where the trachea is in contact with the large vessels, the rapidity of its progress being dependant upon the force by which the air is driven out of the lung —

After it has reached this position, i.e. where the trachea and large vessels are approximated to each other, it at once takes a superficial course, & proceeds under the skin upwards over the anterior surface of the neck, gradually passing backwards round the neck.

At the same time it passes over the face, and occasionally as high as the supra-orbital ridges — It passes over the clavicles, down the shoulders, to the arms, and not infrequently it reaches as far down as the tips of the fingers. It also runs down over the thorax and includes the mammae, and passes as far down, as the edge of the diaphragm —

The crepitation is usually perfectly distinct, and that even when the emphysema may be of a very limited extent. In some cases pain seems to be felt in the interspace between the origin of the Pectoral Muscles. And this is accompanied with a slight inflammatory redness over the joint.

In such cases can the point of effusion exist in this part of the thorax? Before passing for this I would merely mention, that it is always here, that we should look for any emphysema, as it is usually at this point most marked in its characteristics —

At what period of Parturition does the Emphysema occur - By some it has been supposed to be merely a post partum occurrence. No doubt it is so frequently, as seen in Cases 1. 2. 6. &c. But the Cause of its Production, i.e. the yielding of the lung Structure - has occurred previous to the completion of the Labour. Indeed before the second stage

has been completed. It is during the very last phenomena of the second stage, when the head is making its exit through the internal passages. That the conditions necessary for its passage are established, and if so, the head having passed out, during the last pain, a little time is necessary after the birth of the child. In the manifestation of an Emphysematous condition, no doubt therefore that emphysema is frequently a Post-partum condition - But that it always is so, is not the case. In several cases.

1. 2. 5. 7. 8. 10. 11. 12. 18. 19. 20. & 21

Emphysema occurred during the second stage of labour, hence it is a true complication of labour and not merely a Post-partum condition.

If a Female is suffering from emphysema, during the second stage of labour.

What is the duty of the Accoucheur?

We must, in the first place prevent all unnecessary exertions of Muscular force, and calm her mind, as far as his in

54.

in our power. We ought to be endeavoring
to prevent her from suspecting any evil
consequences, and imagining herself to
be in a dangerous condition. If we
find that a natural delivery will be
very tedious and that the emphysema
is increasing, we may use instrumental
means for hastening the conclusion of the
labour. At least if dangerous symptoms
present themselves, "But stay and do with-
out instrumental aid, as much as possible"

If the emphysema has increased to an
alarming extent, so as to cause dyspnoea,
great congestion of neck & face. The removal
of a few ounces of blood, say from the
pituitary orifice, seems to have a most
beneficial effect, giving for a time at
least, a more free and less oppressive
power of respiration. But this method
of treatment, in these days (I have only
seen a patient bled once,) must be adop-
-ted with due caution, as a great deal
depends upon the circumstances of the
case, and the constitution of the patient.

Would the use of Chloroform, in such cases not be productive of essential benefit, especially if it were applied merely until voluntary effort were produced.

If so, instrumental aid, might then be used to remove the patient. By these means we would not be in the very least dependant upon the aid that the abdominal muscles and Diaphragm supply in normal labour. For we would thus remove at once the principal means by which, a return of pressure was applied to the lung structure - and in this way obviate any great chance of a further development of the emphysema. It was a fact now tolerably well known, that instrumental delivery, whilst under Chloroform, does not in general produce these bad effects, which were formerly adduced as arguments against instrumental aid.

This important circumstance then appears to me to be an important one. Hence I have no hesitation, with such circumstances

in advocating this form of treatment —

If the emphysematous condition does not manifest itself until the completion of the second stage, so little force is necessary for the expulsion of the Placenta, that what little there is it will scarcely if at all, affect more in forcing the Parturient Condition. Then the natural respiratory acts do —

But if the Placenta should not come away of itself within the 15 minutes, I would at once remove it, after this time has elapsed, "as to place the patient as soon as possible in that state of rest, which is the natural function of respiration, necessitate — All cases after they come up to this point are to be treated ^{alike} in as far ~~alike~~ as the symptoms permit — That is to say the general principles of treatment are to be the same. viz. Quiet Rest. With the applications of fomentations over the parts most affected, and Painful — If any inflammation of a

Local Asepsis exist. it will be Judged
to apply a few leeches. to the part.

If however the emphysema be developed
to such an extent as to cause a very
great swelling & puffiness of the integument
over the eyes. Preventing the lids from
being opened. or produce great tumefaction
of the face in general - and other parts.
Puncturing the integument may be prac-
-ticed, and that with some success in
alleviating these distressing symptoms.

If this treatment be followed out. The
Air, in the cellular tissue, will be
gradually absorbed, and in few days
then days, all the perceptible symptoms
of emphysema will have disappeared,
without any inflammatory symptoms of any
consequence presenting themselves. In
some cases a slight cough is seen to
trouble the patient, but in a few days
only. and gradually disappears -

The Medical Treatment, with scarcely
vary from that which is generally followed
during the convalescent stage after delivery.

Merely keeping the bowels open, and free. The diet here may be a little more limited if any inflammatory symptoms be present. But otherwise the case should be watched, without adopting any drastic treatment.

It may be asked, Is this complication one that should be looked upon as dangerous to the patient? In general we would be led to say, Not.

Like in cases where the emphysema is of great extent, especially if during the acute stage, and if no medical aid were at hand, it might lead to death by apnea. Otherwise as I have already stated, there is little danger. This conclusion is drawn from the fact that none of all the cases, I have before me have proved fatal, nor have any of the patients suffered from any subsequent evil consequences. With the exception of the one case, that happened in private life, but here death was from phthisis. The phthisis might have influenced

The diseased condition -

On the whole the this seems to be a disease that may, with rare exceptions, be considered as peculiar to the female in labour for the first time - It has been found recurring in one case in the second labour of the patient, but not again in the third. Showing that here it might have been an idiopathic condition - In one or two cases, whose history, in future labours will be followed out. It did not occur in the second. And in one case it occurred during the fourth labour. Had not been present in any of the previous confinements. This was truly accounted for, but illustrated in a striking manner that is really a new exhibition of muscular power, improperly applied, with some difficulty in the labour. That produces the disease. Since in this case the child was a very large one, in proportion to the maternal pelvis. And very just. Improper force was employed by the

Case IX
Case, XI. X.
92.
Case VIII.

Mother during the Second Stage to assist her in her Labours —

Before concluding I would merely remark that I have not taken any notice of or made any remarks, on the effects of abnormal Presentations, in connection with the Products of this morbid Condition.

I am on the tendency which there best might have in causing it. My reason for this is that as I have so fully entered into the details in relation to Normal Labours. I think it is unnecessary to do more than say "that if a normal condition of Labours for its great difficulty is apt to produce Euphysemia. While it not be much more liable to production, when there is an abnormal position of the head, or when the child is largely developed in proportion to the maternal Pelvis - or if the very opposite Condition exists -

J. E. Tierney. Attchison