A CASE OF TWIN LABOR.

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Twins occur once in about eighty-seven cases of labor. Although they are so common they always excite interest because their cause is not known, anomalies in labor are so apt to occur and complications are so common. The fetal and maternal mortalities are therefore higher than in normal labor and operative procedures are more often necessary. Further the combinations of presentation and position are very various and in number that of an arithmetical progression.

The case which I have to report is interesting in several of these particulars, and therefore deserves relation in extenso.

Mrs. Mary M., aged twenty-seven, Italian, has had three normal labors at term and one abortion at three months, cause unknown. Her family and personal history is good. No record of twins in the family. Last period, Oct. 18, 1894. Motion felt at the fourth month. Had early and persistent nausea. Edema of the extremities began at the fifth month, when patient remarked she was larger than she ought to be for that period of pregnancy. The urine contained slight amounts of albumen, was small in quantity, acid in reaction, reddish yellow in color. No microscopical examination made.

Patient after suffering for three weeks from severe backache, pain in abdomen and dyspnea, all due to the great abdominal distention, notified the dispensary July 25, 1895, of the advent of labor. The pains had begun the day before and had gradually reached a moderate intensity.

First Examination. Short, fat, but well built woman. Temperature normal, pulse accelerated. Heart and lungs displaced upward, but otherwise normal. Abdomen enormously distended. Legs and thighs very edematous, and this edema extends to the ribs. Abdominal wall so infiltrated that nothing inside is palpable and a tumor like translucent mass five inches thick hangs down between the thighs. Slightly pendulous abdomen and fluctuation could be gotten all over.

Two pairs of fetal heart tones could be heard, one on each side of the uterus, but nothing else determinable from the external examination. The two sets of heart tones were nearly synchronous. Patient was put to bed and eight hours later a second examination made. The edema had slightly gone down and now the findings were: Irregularly heart shaped uterus, distinct flattening in the fundus, fluctuation all over. Small parts in fundus, both sides. A head over the inlet of the pelvis, freely movable. Heart tones on each side of the uterus, synchronous, and no free zone between them.

Internally, perineum well preserved, vagina large and roomy, pelvis roomy, high up and can be felt a forehead. Bag of waters intact. Cervix effaced. Os dilated to size of a dollar.

Pelvic measurements. Between crests, 29 cm.; between spines, 26½; bandelocque, 19; conjugata diagonalis, 12¼; circumference, 95; therefore conjugata vera 11 or a little less. Sacrum well formed. No sign of rhachitis.

July 26, 11 P. M. General condition essentially the same. Edema somewhat gone down. Only one set of fetal heart tones audible and on the left side. Per vaginam: face presenting lower than yesterday, but not engaged in the inlet.

July 27. Condition about the same. Two pairs of heart tones, each about 140 per minute, however. Temperature normal, pulse 100, pains every eight minutes, short and weak.

July 28, A. M. Pains during the night stronger and at intervals of five minutes. Temperature 100, pulse 100. Gave atropine $\frac{1}{60}$ every 1½ hours. Enema, vaginal douche of 1 per cent lysol.

July 28, P. M. Cervix size of the palm, soft, otherwise everything the same. Thinking that the expectant treatment had been pursued long enough, three days, I decided to interfere in the labor. A diagnosis was made: probable twins, one face, mento laeva anterior, the other transverse. Hydramnion. After giving a 1 per cent lysol douche the membranes were punctured, but I put my finger into the opening and let the fluid off slowly. This

was to prevent prolapse of the cord. The membranes were tough and the pains weak so that the opening did not enlarge. A great quantity of water was allowed to escape. Two and one-half quarts were collected in a pan, while the soaked bed and floor showed as much again.

Examination after this was more satisfactory. In addition to the fetus in face presentation there was behind this under the liver a fluctuating sac containing a hard body which gave ballottement and was presumably the head of a second child in an intact bag of waters. Pains improved. Temperature $100\frac{2}{10}$. Single fetal heart 144.

July 29, A. M. Condition the same. Temperature 99. Pulse 110. One pair fetal heart tones 144 per minute. Woman very weak, quite haggard for want of sleep and highly excited. Decided to terminate labor. Indication, weakness of the powers of labor. The conditions were all present i. e., the passages were ready.

Assisted by Dr. Tice, Mr. Bradbury and Miss Barter, visiting nurse, the kitchen was turned into an operating room. Antisepsis with lysol exclusively. No anesthetic. The small opening in the membranes was enlarged and membranes stripped over the face. Face just reached interspinous line; was movable, i. e. in the inlet. Chin partly rotated anteriorly; the facial line in the right oblique diameter of the pelvis. Forceps were applied in left oblique diameter. One good traction brought the head into pelvis, a second completed rotation; then readjusted forceps to sides of the head. Chin brought under symphysis and occiput over perineum easily. Child in good condition.

A second child could now be felt in transverse position, head to right, back posterior. High in vagina a second bag of waters. Slight hemorrhage. Waited twenty minutes controlling the fetal heart tones. Then ruptured the bag of waters, found an arm presenting, the cord prolapsed, pulsating strongly. Uterus now contracted powerfully and forced the shoulder into the pelvis. Waited a few minutes till the pain was over then the hand was passed into the uterus and the upper foot grasped. Could not bring it down as the presenting shoulder was wedged against the pelvic brim, so I used a procedure invented by Justine Sigmundine and generally known as the double manual, i. e., put a sling around the foot and while pulling on this pushed the shoulder up out of the pelvis with the other hand. The rest of the operation was easy save that in the extraction the left arm of the child was caught in the nape of

the neck and was brought down with great difficulty. Smellie Veit method of delivery of the head.

Child somewhat asphyxiated. It was tied off, held vertically to let the fluids run from the mouth and by means of the tracheal catheter ʒss. of liquor amnii was sucked from the trachea. It soon cried lustily. Both children were males.

I. Weight, 7 lbs.; length, 50 cm.; circumferences of head, 34¼, 31¼ cm.

II. Weight, 7 lbs., 8 oz.; length, 50 cm.; circumferences of head, 34¾, 32¼ cm.

In the third stage considerable hemorrhage. Crede's method of treatment employed. After twenty-five minutes successful expression, a slight tearing was felt as placenta left the uterus. Loss of blood considerable, uterus showing a tendency to relax. Massage for three hours. Ergotole hyperdermically, ergot by mouth.

There were two placentas, adherent by a wall of decidua. No anastomoses could be found between them. Two amnions and two chorions could be demonstrated in the septum. The twins were therefore from separate ova, and their being of the same sex accidental. There was a piece the size of a hazelnut missing from the margin of one placenta and this could be diagnosed only from the fetal surface by the sudden breaking off in the course of one of the vessels. One cord was inserted marginally and the vessels described large arcs around the placenta. The woman made an excellent recovery. No temperature above 99.8. Children both doing finely.

This case presents several points of interest which I wish to take up in order. First, the hydramnion. There was at least a gallon of water in the sac of the first child. This is a moderate increase in the amount of the liquor amnii. Delore[1] says that anything over two liters is abnormal. As the ovum was healthy in all respects we must look for this increase in the general hydremia of the mother.

Second, the peculiar position of the fetuses. In analyzing a table given by Charpentier, Traitè des Accouchements, page 480, I find that face presentation occurred with twins four times in 2,195 cases; once with the breech, three times with the occiput of the other child. In a rather extensive literature at my command I have found no case similar to the one reported. In trying to explain the occurrence of this peculiar combination I found myself

in that sea of etiological factors which are given by various and many authors as causative of face presentation.

The most plausible seem to me these: First, hydramnion. Charpentier, l. c. page 411 shows that face presentation is common with hydramnion and quotes experiments with dead fetuses to show that deflection occurs when they are suspended in a tub of water and that this deflection of the chin is increased when the head touches the bottom of the vessel. Second, the position of the other fetus had something to do with it. Lying transversely across the inlet behind the first fetus it must have prevented the flexion of the trunk so necessary for the approach of the chin to the sternum, Ahlfeld, Lehrbuch der Geburtshülfe, page 124.

Third, regarding the diagnosis of twins. Very few of the usual signs could be used; twice were two sets of fetal heart tones heard, but each time they were nearly synchronous. The change in the position of the tones from one side to the other at the different examinations was due to the body of the child lying in front being freely movable in the great quantity of liquor amnii. The finding a second body in a fluctuating sac after the fluid has been emptied from the first is a new point in the diagnosis of twins.

Fourth, the use of forceps with the first child in preference to version and extraction. It is the safest rule never to use forceps until the head is engaged, that is, till the head has passed into the pelvis with its greatest segment. One should do version. This is especially true of face presentation as owing to the length of the head, the face appears to be low in the pelvis, whereas in reality the biparietal diameter has not yet gotten into the inlet.

Schroeder[3] says it is the ignorance of this fact that causes the high fetal and maternal mortality of forceps operations in face cases. In this case the face had just reached the interspinous line, this meant that the largest diameter had not yet passed the inlet. Three operations had to be considered. First, changing the face to a vertex presentation after the method given by Baudelocque[3], i. e., passing in the whole hand and forcing the chin to the sternum, or else his method as modified by Thorn.[4] Second, version by the combined method and extraction. Third, the forceps. Examination revealed a small head and a roomy pelvis. The chin had already begun to rotate anteriorly so I determined, these conditions being present and as version would be needed with the second I would use forceps on the first child. The extraction was very easy indeed.

Fifth, regarding bringing down the upper foot in the version.

Simpson, Kristeller and Hohl[5] advised to do this always when the back of the child was to the back of the mother. Schauta[6], representing the Vienna school, in which really the precepts of the English school are handed down, strongly recommends the adherence to this rule. The Germans, however, prominently Fritsch[7] and Schroeder[8], claim it makes no difference which foot is brought down, while Zweifel[8], of Leipsig, Cent. für Gyn., 1885, 20, says, never bring down the upper foot in back posterior positions where the shoulder is wedged in the inlet. Ribemont-Dessaignes[9] advises as did Simpson and the Vienna school.

The Americans reflect the opinions of the authors across the Atlantic, some, Parvin[1], Lusk[10], Meigs, allowing any foot to be grasped; others, Hirst[11], Jaggard, recommending the upper foot. The idea is this: When the back is posterior, by seizing the upper foot, in the subsequent version, the child is rotated on its longitudinal axis, and its back comes to the symphysis, thus preventing, in the subsequent extraction, the occiput from getting into the hollow of the sacrum.

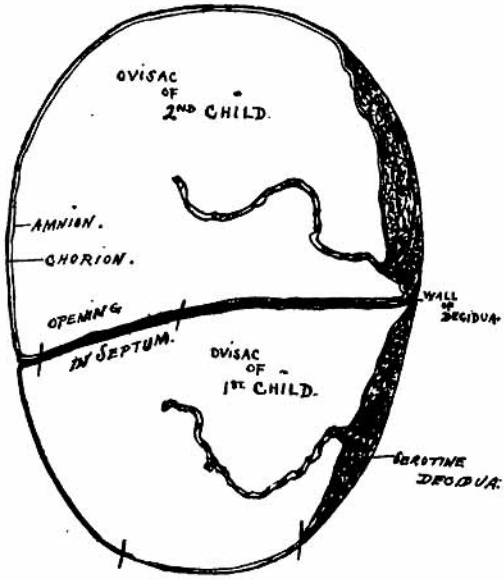
The Germans claim that no matter which foot is brought down, if the extraction is conducted properly the back will come anteriorly, and the occiput give no trouble; and that nature alone can attend to this, or the accoucheur can assist the mechanism by directing the movement of the trunk. That therefore the attempt to find the upper foot is unnecessary and sometimes positively harmful, by prolonging the operation and exposing the mother to the risks of infection and rupture of the uterus. Zweifel, l. c., says even that the version may be made impossible by the other extremity being jammed across the inlet, and quotes a case illustrating the condition. It is possible that the difficulty experienced in my case, which necessitated the use of the double manual, was due to this cause.

As far as my experience goes, I think it makes little difference which foot is brought down, as by bringing down the second foot or pushing up the shoulder the version can be completed, and by directing the extraction slowly the occiput comes anteriorly. In the easy cases I look for the upper foot; in the cases where it is difficult to reach the feet, I take the first I can get, and am usually glad to get any foot.

Sixth. The placentas in utero were situated one above the other, for during the version the lower edge could be felt in the lower uterine segment to the left side, and the opening in the membranes being near the placenta showed this also. The bag

of waters of the second child was ruptured through the septum. This could be demonstrated after the placenta was expelled, and I present here a schematic drawing to represent the conditions as they existed in utero. Winckel, Text-book of Midwifery, page 116, has a picture of a similar case.

Budin, Arch. de Tocologie, 1883, page 140, describes three positions that the ovisacs can occupy in the uterus. First they lie parallel with their poles in the lower uterine segment and the fundus; second, transversely, one ovisac occupying the lower uterine segment, the other the fundus; third, one lies in front of the other.



The case presented is a combination of second and third of this classification, i. e., one fetus lay in front and below the other.

Finally regarding the diagnosis of absent small pieces of placenta. Inspecting the maternal surface of the placenta in this case, it seemed complete. 'Twas a little ragged, but all the cotyledons fitted well together. On the fetal surface however, near the edge could be seen a rather large vein torn across and there a blood clot. Corresponding to this on the other side was a defect the size of a hazelnut. This explained the slight tearing felt during the performance of Crede's expression.

Examination with this point in view is a valuable aid in determining if the placenta is complete, especially in cases of hemor-

rhage when one suspects a placenta succenturiata retained in the uterus.

REFERENCES.

[1]Parvin, Obstetrics, 1886, page 284, and on version.
[2]Schroeder, Lehrbuch der Geburtshülfe, '91, pages 209 and 877.
[3]Baudelocque, L'Art des Accouchements, Paris, 1822.
[4]Thorn, Zeitschrift für Geburtshülfe und Gynaekologie, Vol. XXXI., page 1.
[5]Quoted by Kehrer. Operative Geburtshülfe, 1892, page 87.
[6]Schauta, Operative Geburtshülfe, 1893, page 114.
[7]Fritsch, Geburtshülfliche Operationslehre, 1880.
[8]Zweifel, Centralblatt für Gynaecologie, No. 20, 1895.
[9]Ribemont-Dessaignes et Le Page, Prècis d'Obstetrique, Paris 1894, p. 1092.
[10]Lusk, Obstetrics, on Version.
[11]Hirst. American System of Obstetrics, Vol. 2, page 226.

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