

Part First.

ORIGINAL COMMUNICATIONS.

ARTICLE I. — *Report of the Edinburgh Royal Maternity and Simpson Memorial Hospital for the Quarter ending 31st January 1880.* By ALEXANDER RUSSELL SIMPSON, M.D., F.R.S.E., Professor of Medicine and Midwifery and the Diseases of Women and Children in the University of Edinburgh.

(Communicated to the Edinburgh Obstetrical Society, 11th February 1880.)

WHEN I entered on my duties as physician to the Hospital, its sanitary condition was by no means satisfactory, as was indicated in the reports of the two preceding quarters. Finding that there was a disagreeable smell in the lower delivery rooms, Dr Croom and I got our energetic health officer, Dr Littlejohn, to inspect the premises. He promptly ordered the removal of the sinks from the delivery rooms; for although they were supposed to be properly trapped, and were said not to be in communication with the main drain, there was no doubt that the bad smell alluded to emanated from them. In a delivery room sinks are apt to become the receptacle of blood and other matters liable to decomposition. I need hardly add that a very thorough disinfection of all the apartments of the building was carried out.

Whether it was a result of these measures I am not quite prepared to say, but during the past quarter there was no mortality among the lying-in women, and the morbidity was trifling. The annals of the period are happily altogether dull—so dull, that I only trouble the Society with a brief record by way of following up the good example of my colleagues who have already reported.

Mr H. Spence Reid, M.B., and Mr A. Murray Oram, M.B., had been appointed house-surgeons for the quarter. Mr Reid having resigned in January, Mr Charles A. M'Lean, M.B., was appointed to the vacant office. To these gentlemen I am indebted for the following statistics and records of cases.

The total number of cases treated in the extern and intern departments was 156.

Extern Cases.—The extern cases numbered 112, of which there were 14 primiparæ and 98 multiparæ.

The average age of the former was 21 years, of the latter 23 years.

As regards the mortality, there were no deaths among the mothers. There were 8 foetal deaths, 6 being still-born, and 2 dying after delivery, from debility.

In 2 cases forceps were applied; the indication in one case being slightly uniformly contracted pelvis, which required the application of the instrument to bring the head through the brim and cavity after the os had been fully dilated. In the other patient there was accidental hæmorrhage, complicating a brow presentation. The forceps were applied when the forehead was at the vulva and the brow behind the pubic arch. On extraction, the occiput came over the perineum first, and then the forehead and face came under the symphysis pubis.

Intern Cases.—The cases treated inside the Hospital were 42 in number—24 being primiparæ, and 18 multiparæ.

Ages of Patients.—The average age in the case of the primiparæ was 23 years, in the multiparæ 27 years; so that the patients treated within the Institution were, on an average, older than those who preferred to be attended outside.

Duration of Labour.—The average duration of labour in these intern patients was, in the case of the primiparæ—1st stage, 12 hours; 2d stage, 2 hours; 3d stage, 10 minutes; making an average total duration of 14 hours 10 minutes. In the case of the multiparæ, the average duration of the 1st stage was 7 hours 49 minutes; the 2d stage, 1 hour 31 minutes; 3d stage, 14 minutes; making the average total duration 9 hours and 34 minutes. The number of cases is too small to make the proportional figures of much value; but the difference in duration of the third stage in the two classes—that in multiparæ lasting nearly one-third longer than in primiparæ—makes it worth while to inquire whether, in a wider area of observation, such a difference will be found to prevail.

Presentations and Positions.—As regards the *presentation* of the children, all the 44 patients had vertex presentations, with the exception of one of the foetuses in a twin case, which presented by the breech.

As regards the *position* in the *multiparæ*, we have the following proportion in 14 cases:—

L.O.A. = 8; R.O.P. = 4; R.O.A. = 1; L.O.P. = 1.

In the *primiparæ*, 22 cases:—

L.O.A. = 16; R.O.P. = 3; R.O.A. = 2; L.O.P. = 1.

Plural Births.—There were two cases of twins, both in multiparous patients:—

- (1.) 1st child, vertex; R.O.P.
2d " breech; position not ascertained.
- (2.) 1st child, vertex; R.O.P.
2d " " ; L.O.A.

Sex of the Children.—All the four twin children were males, and there were in all 11 males and 9 females among the children of the multiparæ, and 14 males and 12 females among the children of the primiparæ.

Mortality.—There was no mortality among the mothers. There were 4 foetal deaths, apart from the twin cases, where the foetuses were premature and still-born.

Instrumental Labour.—There was 1 instrumental labour, a forceps case, which is reported at length below.

The average duration of the patients' residence in the Hospital was 17 days. This long duration was due to several patients having been detained in hospital for charitable reasons during the severe weather, and especially to the circumstance that one patient was in Hospital for 60 days, suffering from mammary abscesses, while the forceps case remained in hospital for 40 days, as she only slowly recovered her strength.

Conditions of Uterus, etc., on Dismissal.—From examination made of the patients on dismissal, the following results were obtained:—

In 15 out of 16 examined, the fundus uteri was to the front, and felt at points varying from on a level with the brim of the pelvis to 3 inches above it. In one case it was retroflexed.

In all these cases the os uteri was fissured, in 3 cases to the right side only, in 1 posteriorly, and in the others to the left side or transversely. Of the 3 cases in which the fissuring occurred on the right side only, it is worthy of note that in 2 of them the occiput was placed during labour in the right side of the pelvis.

Special Cases.—Of individual cases I have selected the following as those which alone have any claim to a more complete record:—

CASE I.—*Slight Ante-Partum Hæmorrhage; Tedious Labour; Forceps Delivery; Prolonged Convalescence.*

E. M., aged 21, admitted 8th December 1879; primipara; has had one previous miscarriage. Last menstruation was in the beginning of March 1879; quickening was in July. Patient was admitted about 11.30 A.M., complaining of a discharge of blood from the vaginal orifice, which began about 6 A.M., but was not profuse. On examination by the house-surgeon, the vagina was found to be small; the os uteri was patulous, easily admitting one finger. On sweeping the finger round the presenting vertex, no abnormality could be detected. On withdrawing the examining finger, it was covered with blood mixed with mucus. The foetal heart could be heard. Patient was ordered to keep quiet, and a drachm of the liquid extract of ergot was administered. There was no history of any injury having been sustained by the patient. Hitherto she had not complained of any labour pains. At noon there was some discharge of liquor amnii, but the os uteri was no larger than it was at the time of previous examination. After this discharge hæmorrhage ceased. At 3 P.M. labour pains set in, and

at 3.30 P.M. the two fingers could be introduced within the os uteri. The pains came on at irregular intervals (usually about every thirty minutes) up to 8 P.M., after which time they recurred every fifteen minutes. They, however, produced little effect upon the size of the os uteri, but gradually increased in frequency, until, at 10 P.M., they recurred every five minutes, but were of short duration. At 12 P.M. patient was in a very excited condition, tossing from side to side, throwing her arms wildly about, and complaining of great thirst. Her lips and tongue were dry, and covered with sordes. The uterine contractions came on about every minute, and lasted for about thirty seconds, the os uteri being at this time the size of half-a-crown. Bi-meconate of morphia, gr. $\frac{1}{4}$, was administered subcutaneously. This produced no effect upon patient, so was followed by 20 grains of chloral hydrate twenty minutes subsequently.

It was noted at 2 A.M. the bladder seemed to be well distended, but on passing the catheter only two ounces of urine were drawn off. Ten minutes after noon Professor Simpson returned, and judging that there was now sufficient dilatation of the os uteri to allow of the use of forceps without injury to the cervix, he delivered the patient by using his own modification of Tarnier's forceps. As the head passed the vulva, $6\frac{3}{4}$ grs. of ergotin were injected into the right buttock.

On being born, the child was in a state of apnoea, necessitating the alternate plunging of it into cold and warm water, and the employment of Schultze's methods for the establishment of respiration. The sex of the child was female; the weight 8 lbs. 10 oz., and the length 21 inches. The caput succedaneum was over left parietal eminence. Both parietal bones overlapped the occipital at the lambdoidal suture.

Circumference of foetal head, 13 inches; bi-parietal diameter, $3\frac{1}{4}$ inches; occipito-mental, $4\frac{3}{4}$ inches; occipito-frontal, $4\frac{1}{2}$ inches; sub-occipito-bregmatic, 4 inches.

The following lesions were produced by the forceps:—1. On foetus—slight facial paralysis on left side; depression in skin over left temple, running down for the length of an inch in front of left ear; abrasion just above right zygomatic arch. 2. On mother—fissure of left labium minus, near pubic arch; fissure of right labium majus, towards its posterior extremity; laceration of vaginal mucous membrane on right side.

Progress.—There was a good deal of swelling of the soft parts in the vagina and round the vaginal orifice, which rendered daily catheterization necessary for two weeks. The child, owing to the paralysis, had to be fed with a spoon for several days after delivery. The paralysis gradually subsided, and the other lesions caused by forceps healed. On tenth day post partum the labial fissures were healing in a satisfactory manner. On making a bimanual examination, the fundus uteri could not be recognised lying anteriorly,

as the bladder was distended with urine; but on the urine being withdrawn the fundus was easily detected lying to the front. The progress of the case was satisfactory, though tedious, as patient took a long time to recover her strength.

Discharged well, 14th January 1880.

On abdominal examination, fundus uteri was not above the pelvic brim. The separated surfaces in the fissured labium minus had cicatrized. The fissure in the labium majus had healed by first intention. On vaginal examination, the vaginal tissue was found to be cicatrized. Os uteri patulous and fissured. Fundus uteri lay well to the front.

CASE II.—*Normal Labour; Herpes Zoster during Puerperal Week; Arrest of Lactation; Mammary Abscesses.*

J. S., æt. 22, admitted 21st November 1879. Delivered 22d November 1879; labour normal. Child presented in the first vertex position; female, and healthy. She had some inconvenience with her breasts on the 24th. Nipple shields were given her, and they got somewhat better. On the 29th her temp. rose to 101°·2. This was explained by an eruption of herpes zoster on the right side of the thorax which appeared next day. This was treated with lint soaked in carbolic oil. On 4th December the temp. rose to 103, 104–6. This was caused by an inflamed and tender state of the breasts. Aconite emul. (B.P.) ℥v. every hour was given. The temp. fell, but on 7th December 1879 it again rose to 102°. On examination hard lumps were found on the breasts. Hot fomentations of linimentum belladonnæ applied over breasts. An erysipelatous appearance of the face was observed, and carbolic oil applied.

The *urine acid*, sp. gr. 1024; urates; no albumen. An abscess in right breast was opened; a large quantity of pus flowed out of the incision. A poultice of linseed meal was afterwards applied to the breast.

Patient was dismissed on 20th January 1880. The sinuses in the right breast were almost healed, though at some parts the breasts were slightly swollen and indurated. Her left breast had healed altogether.

Two incisions were made on left breast on 17th December 1879, and another incision on right breast, to open some abscesses which had formed on these places, on 19th December 1879.

CASE III.—*Normal Labour; Mammary Abscesses.*

A. M., aged 21; primipara; no miscarriages. Last menstruation was in the beginning of March; period of quickening doubtful. Admitted 5th January 1880; delivered 7th January 1880. Presentation vertex. Position R.O.P. Duration of first stage ten hours; of second stage, two hours; of third stage, eleven minutes.

Progress.—On the afternoon of the second day patient had shiverings, and complained of pelvic pain. There was tenderness on pressure over the lower part of the abdomen. As the evening temp. was 104° , tinct. aconit. (B.P.) $\mathbb{M}\text{ij}$. were administered several times during the night, and the abdomen below the umbilicus was painted with tinct. iodi. On the third morning the pulse was 126, and the temp. $100^{\circ}\cdot 2$. The abdominal tenderness was better. Patient made her water without difficulty, and the bowels were moved by aperient medicine. Lactation was satisfactory. On the third evening the pulse was 128, regular, full, and compressible, while temp. was 104° . On administering castor-oil in the morning patient vomited. The evacuation of the bowels was secured by compound liquorice powder. Tinct. aconit. (B.P.) $\mathbb{M}\text{ij}$. were ordered to be taken every hour during the night, during which the following shows the temperature:—2 A.M., $105^{\circ}\cdot 2$; 4 A.M., 104° ; 6 A.M., $104^{\circ}\cdot 3$; 8 A.M., 104° .

On the morning of the 4th day the pulse was 112, and the temp. 103° . Abdomen tender to the touch, and tympanitic. Lochial discharge slightly foetid. Milk plentiful. Bowels opened loosely once in the early morning. Great thirst, and dryness of lips and tongue. Patient was removed into special ward. The whole of the abdomen was painted with tinct. iodi., which is to be repeated thrice daily. Vaginal carbolized injections to be used thrice daily instead of twice. Aconite discontinued, and ten-grain doses of sulphate of quinine substituted, which are to be repeated as often as is thought necessary. At 2.15 P.M. the temp. was $102^{\circ}\cdot 7$, and patient vomited the quinine which had just been given to her. The thirst was treated by giving tinct. ferri. perchlor. $\mathbb{M}\text{x}$. in a wineglassful of water as a drink. Patient found it impossible to keep the quinine on her stomach, so aconite was again had recourse to in doses of five minims of the B.P. tincture every forty-five minutes. The first dose was given at 6.15 P.M., when the temp. was over 100° . At 7 P.M. the temp. was $99^{\circ}\cdot 6$, and at 8 P.M. 97° . At 8.20 P.M. aconite was ordered to be given every hour and a half, instead of every forty-five minutes.

5th day, A.M.—Patient better. Pelvic tenderness much diminished. Has had diarrhoea through the night. Temp., 101° ; pulse, 96. Aconite to be taken every hour in five-minim doses. Evening temp., $103^{\circ}\cdot 2$; pulse, 120.

6th day A.M.—Temp., $102^{\circ}\cdot 4$; pulse, 100. Tenderness on pressure below the umbilicus. Bowels not moved for the last forty-two hours. Ordered liquorice powder. Evening temp., $102^{\circ}\cdot 4$; pulse, 120.

7th day, A.M.—Pulse, 114; temp., $100^{\circ}\cdot 6$. P.M.—Pulse, 104; temp., $99^{\circ}\cdot 4$.

8th day, A.M.—Pulse, 88; temp., 95° . Aconite discontinued. Complains of scalding pain about meatus urinarius on micturition, the cause of which is a slight fissure. Glycerin carbolic (1 in 16).

and ungt. zinc. oxid. to be applied to fissure. P.M.—Pulse, 116; temp., 101°·2.

9th day, A.M.—Pulse, 90; temp., 96°·8. Scalding pain better. Evening temp., 98°·6; pulse, 96.

12th day, A.M.—Pulse, 96; temp., 98°. Evening pulse, 120; temp., 101°·4. During afternoon patient was removed into general ward. At night the left mamma was found to be hardened just above the nipple, and to be engorged and painful. Hot fomentations were applied to the breast, and patient took liquorice powder. No milk could be extracted from the breast, either by applying the child or the breast-pump.

13th day, A.M.—Pulse, 132; temp., 100°. Breast still hard and painful. Bowels not moved by the powder. Ordered castor-oil, and efforts to be made to draw off milk from the breast. P.M.—Pulse, 120; temp., 103°. Breast very painful, engorged, and tense. All efforts to extract milk have failed. Bowels freely opened. Tinct. belladonna to be sprinkled over the fomentations, and also to be rubbed into the breast. Patient to take tinct. aconit. m.v. every hour.

14th day, A.M.—Pulse, 112; temp., 100°·2. Child weaned at mother's desire. Left breast still hard and engorged, but less painful. Tinct. belladonna to be also applied to right mamma, and the breast-pump to be applied to it. Bowels to be kept freely open; and pot. iodid. gr. x. to be taken thrice daily. Evening pulse, 144, temp., 103°.

15th day, A.M.—Pulse, 96; temp., 99° P.M.—Pulse, 104; temp., 100°·6.

16th day, A.M.—Pulse, 120; temp., 98°·8. Left mamma softer, and not painful. Free discharge of pus from left nipple. Evening temp., 101°·8; pulse, 116.

17th day, A.M.—Pulse, 108; temp., 98°·4. Evening temp., 100°·4; pulse, 100. Still some hardness on left side of left breast. Discharge from nipple cured. Hot fomentation, tinct. belladonna and pot. iodid. continued. Subsequent progress satisfactory.

Dismissed 30th January 1880, 23rd day post partum.

Os uteri transversely fissured on right side.

CASE IV.—*Normal Labour; Pelvic Cellulitis.*

Mrs R., aged 27; multipara; one previous miscarriage. Last menstruation began on 26th April 1879; quickened in August. Admitted and delivered 14th January 1880. Presentation vertex. Position, left occipital. Right parietal bone overlaps left.

Circumference of fœtal head, 13¼ inches; bi-parietal diameter, 3½ inches; occipito-mental diameter, 5 inches; occipito-frontal diameter, 4¾ inches; sub-occipito-bregmatic, 3 inches. Slight fissure in perineum.

Progress.—During the third night patient had shiverings. On the fourth morning the pulse was 120, temp., 140° F. No pelvic

tenderness. Milk scanty. Tympanitis. Lochial discharge plentiful, and not foetid. Micturition free. Ordered castor-oil, which had the effect of freely moving the bowels.

On the fourth night pulse was 162; temp., 103°·6. Ordered tinct. aconit. (B.P.) ℥ij. every hour.

On the fifth morning patient had passed a sleepless night. No pelvic tenderness. Suffers from a cough. Nothing abnormal to be found in the lungs. Lochial discharge still normal. Milk remains very scanty in quantity. Suffers from headache and thirst. Micturition normal. Temp. 104°. Tinct. aconit. ℥v. to be given every half hour. Tympanitis still present. Whole anterior surface of abdomen to be painted with tinct. iodi. thrice daily. Tinct. feri perchlor. ℥x. in a wineglassful of water to be given as a drink. Patient to be moved into special at 1.45 P.M. Temp. was 105°·2. Aconite to be given every twenty minutes in five-minim doses. Vaginal carbolized injections to be given thrice instead of twice daily. Temp. at 3 P.M. was 104°·2; at 4 P.M., 105°; at 7 P.M., 104°·8; at 8.30 P.M., 104°·6; and at 10 P.M., 103°·8. At 11 P.M. 10 grains of sulphate of quinine were given, and the dose repeated at 1.15 A.M. The temp. now steadily fell, until at 9 o'clock A.M. on the sixth day it was 99°, and the pulse 96. Patient felt much better. The bowels have been freely opened. No abdominal tenderness, but still some tympanitis. As patient suffered from cinchonism, 5 minims of tinct. aconit. (B.P.) were given every forty-five minutes in the place of the quinine, but the temperature gradually rose to 101°, and ten-grain doses of sulphate of the quinine were resumed. As patient in the course of a few hours suffered so much from the effects of the quinine, aconite was again given, but failed to keep the temperature down.

7th day.—There is an evening rise of temperature and diarrhoea. Patient complains of pain in left hip-joint and left knee-joint. There is no deposit in the left lateral fornix.

10th day.—Patient very weak. Ordered strong beef-tea thrice daily. Still an evening rise of temperature, and a little diarrhoea. No abdominal spots.

11th day.—As the diarrhoea still continues, patient is to take lime-water, and have the milk she drinks boiled, and the white of egg mixed with it.

12th day.—Diarrhoea better. Still complains of pain in the left leg.

15th day.—Diarrhoea and vomiting set in after taking soup for dinner.

16th day.—Diarrhoea still continues very troublesome. Fundus uteri 3 inches above pelvic brim, and lying to the front. Fissure in perineum healed. Os uteri transversely fissured on left side. Patient to continue taking the quinine.

CASE V.—*Favus in a Multipara.*

Jane Hughes, æt. 30, multipara, admitted and delivered 15th

January 1880. Child male; third; healthy. Last catamenia on 6th May 1879; quickening about middle of August 1879. When the patient was admitted, the scalp was found to be covered with a very extensive crust of tinea favosa, for which she had had her hair cut short, but for which she had had no medical treatment. Hour of delivery, 5.52 P.M. Labour natural. Duration of first stage not known; second, one and a half hours; third, six minutes. Presentation and position, vertex, R.O.P. Diameter of foetal head:—Circumference, $13\frac{1}{2}$ inches; occipito-mental, 5 inches; occipito-frontal, $4\frac{3}{4}$ inches; bi-parietal, $3\frac{3}{4}$ inches; sub-occipito-bregmatic, $3\frac{1}{2}$ inches; bi-temporal, $3\frac{1}{4}$ inches. Caput succedaneum not well marked. The cord was twisted round child's neck twice. No overlapping of the bones.

Progress.—The patient kept well for two days. Pulse after delivery 76.

	Pulse.		Temp.	
	M.	E.	M.	E.
Jan. 15, I. ...	76	80	99°	97°
Jan. 16, II. 76	76	80	99°	98°·4
Jan. 17, III. 120	120	104	100°	99°·8

Patient has had shiverings. Pelvic tenderness. Scarcely any milk in the breasts. Ordered tinct. aconiti. (B.P.) ℥ v. every hour. Iodine to be painted over abdomen, and castor-oil to be taken internally. Patient's head (since admission) affected with tinea favosa. Carbolic oil (1-20) to be applied over the whole head, which is divested of hair.

18th January, fourth day p.p.—Pulse, 108-120; temp., 99°-101°·2. Aconite to be continued. Still some pelvic tenderness. Complains of being sick. She vomited at night; vomited matter liquid and greenish in colour, with a slight quantity of undigested food.

19th January, 5th day.—Pulse, 84-84; temp. 98°·4-100°. 10 grs. of sulphate of quinine given thrice during the night.

20th January, 6th day.—Pulse, 76-96; temp., 98°·4-98°. Feels better. A mixture of quinine, diluted sulphuric acid, and tinct. of steel, given as a tonic. Complains of cough.

21st January, 7th day.—Pulse, 84-76; temp., 98°·4-98°·2. Cough mixture ordered.

22d January, 8th day.—Pulse, 84-76; temp., 98°-98°·4.

23d January, 9th day.—Pulse, 60-68; temp., 97°-98°·4. Cough better.

24th January, 10th day.—Pulse, 78-84; temp., 98°·4-99°.

25th January, 11th day.—Pulse, 84-68; temp., 98°·4-100°. Patient was dismissed on 26th January 1880. Child well. The favus in her head had much improved, the carbolic oil treatment having been continued till time of dismissal.

Per Vaginam Examination.—Os uteri patulous, irregular, and lacerated. Uterus to the front.

CASE VI.—*Normal Parturition—Cephalhæmatoma Neonati.*

Jane Condie, aged 25. Admitted and delivered 21st November 1879; primipara. Period of quickening not known; last catamenia in the beginning of March 1879. Presentation vertex; position R.O.P. Sex of child was male. Second stage lasted two hours. The head of fœtus rested upon the perineum for an hour, producing a slight caput succedaneum over left parietal eminence. The left parietal bone overlapped the right. There was a cephalhæmatoma over left parietal eminence.

Circumference of fœtal head, 12 inches; bi-parietal diameter, $3\frac{1}{4}$ inches; occipito-mental, $4\frac{7}{8}$ inches; occipito-frontal, $4\frac{1}{8}$ inches; sub-occipito-bregmatic, $3\frac{3}{8}$ inches.

Progress.—Good. Swelling, which was the size of half a mandarin orange, on left side of fœtal head gradually developed a hard ring at its circumference. It was left to the natural changes, and had become considerably lessened ere the patient left the hospital.

On the tenth day post partum maternal temperature rose to 105° . Tinct. aconit. (B.P.) ℥j. every hour, was given. On the eleventh morning the temperature was 100° , and at night 99° .

Discharged 10th December 1879.

Fundus uteri was on a level with the pelvic brim. Os uteri was fissured transversely on both sides. The uterus lay to the front.

ARTICLE II.—*Animal Vaccination.* By BENJAMIN BELL, F.R.C.S.E.

HAVING recently perused with much interest a report on animal vaccination by Dr Henry A. Martin of Massachusetts, I am strongly impressed with the conviction that, whatever the causes may be, the great discovery so amply illustrated by Jenner at the close of last century has not been followed by the splendid results which he and his benevolent followers had then every reason to anticipate. We cannot study the works of these men—the original papers of Jenner, and notably the very able and exhaustive treatise of our own townsman, the late Mr James Bryce, among others—we cannot reflect upon the numerous varieties of proof which have transpired during the long intervening period, without being convinced that a real and almost inestimable boon was conferred on the human race when the knowledge of the cow-pock being a protective *from* or a mitigative *of* variola was first promulgated. Still, it is a melancholy fact that, after the lapse of eighty years, the loathsome and often fatal disease, which there was good reason to believe might have been extirpated long ago, is seldom entirely absent from the Registrar-General's Reports, and is still ready at any moment to assert itself as an epidemic.

Recent legislative enactments have done much to render the