ANNUAL MEDICAL REPORT

OF THE

Madras Government Lying-in Hospital

FOR THE YEAR

1879.

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MADRAS GOVERNMENT LYING-IN HOSPITAL

FOR THE YEAR 1879.

The general scheme of the report is the same as in former years, the classification followed being that of Denman.

Delivered in hospital, including abortions	1,568
Delivered on the way to hospital or brought in immediately after...	17
Died undelivered	2
Total ...	1,587

Class.	*Division.*	*Sub-Division.*			
I. Natural ...	Purely natural ...	Born occipito-anterior		1,164	
		Do. do. posterior (6)		2	
	Varieties	Face (4)		...	
					1,166
II. Difficult.	Tedious	Natural powers over 24 hours		6	
	Laborious	Barnes' elastic bags	1		
		Forceps	118		
		Version cephalic	3		
		Do. podalic	4		
		Do. do. and forceps ...	3		
		Do. do. and craniotomy ...	3		
		Craniotomy	1		
		Cephalotripsy	12		
				145	
					151
III. Preternatural.	Inverted	Breech (10)	20		
		Foot (14)	17		
				37	
	Transverse	Upper extremity (12)	7		
		Abdomen	1		
		Back (1)	...		
				8	
	Compound	Head and hand (1)	5		
		Head and foot (1)	...		
		Breech and foot (2)	2		
		Side and hands (1)	...		
		Hand and foot (1)	...		
				7	
					52
IV. Complex Labour.	Plural Births ...	Twins (3)	28		
		Triplets	1		
				29	
	Hæmorrhage ...	Accidental	3		
		Unavoidable	17		
		Post-partum	15		
				35	
	Retained placenta ...	Simple retention	7		
		Morbid adhesion	2		
				9	

* The figures between brackets refer to the number of similar labours in other divisions.

Class.	Division.	Sub-Division.			
IV. Complex Labour—(*Contd.*)	Puerperal convulsions ...	Eclampsi (3)		23	
	Ruptured uterus, &c.	Ruptured uterus and vagina ...	2		
		Do. uterus	2		
		Do. vagina	3		
				7	
	Prolapse of funis ...	With head (2)	6		
		Do. foot (1)	...		
		Do. arm (2)	5		
		Do. foot	3		
				14	
	Other complications ...	Albuminuria ; anasarca	3		
		Anæmia	2		
		Do. and anasarca ...	2		
		Dysentery	6		
		Famine diarrhœa	1		
		Gastro-enteric fever	3		
		Heart disease	3		
		Jaundice	1		
		Liver, acute atrophy of (2) ...	5		
		Phthisis pulmonalis	2		
		Pneumonia (2)	2		
		Prolapse of uterus (3)	3		
		Thrombosis	1		
		Syncope	1		
		Syphilis	1		
				36	153
	Diseases of Pregnancy.	Abortion, simple	32		
		Albuminuria ; anasarca	1		
		Cystitis	1		
		Dysentery	3		
		Excess of liquor amnii	2		
		Gastro-enteric fever	1		
		Liver, acute atrophy of (5) ...	2		
		Metro-peritonitis	1		
		Pneumonia (2)	2		
		Privatio (syphilis)	1		
		Puerperal convulsions (22) ...	3		
		Puerperal fever (collapse) ...	1		
		Retained placenta	13		
		Vesicular mole	2		
				65	1,587

OBSTETRIC OPERATIONS.

Barnes' elastic bags.	Difficult	Head presenting (4)	1		
	Preternatural	Head and hand (1)	...		
				1	
	Complex	Placenta prævia (2)	2		
		Puerperal convulsions (13) ...	1		
		Head and funis (1)	...		
		Liver, acute atrophy of (1) ...	...		
				3	4
Forceps ...	Difficult	Head presenting	118		
		Do. do. after version ...	3		
				121	
	Preternatural ...	Head and arm after cephalic version.	1		
		After-coming head	3		
				4	

Class.	Division.	Sub-Division.			
Forceps—(*Continued*).	Complex	Plural births	3		
		Placenta prævia	4		
		Post-partum hæmorrhage ...	5		
		Retained placenta	1		
		Puerperal convulsions	17		
		Head and funis	2		
		Albuminuria anasarca	2		
		Prolapse of uterus	2		
		Thrombosis	1		
				37	162
Craniotomy and Cephalotripsy.	Difficult	Head presenting	12		
		Do. do. forceps failed ...	1		
		Do. do. after version ...	3		
		Face presenting (1)	...		
				16	
	Preternatural ...	Breech	1		
		Foot	1		
		Head and hand after version ...	1		
				3	
	Complex	Placenta prævia	2		
		Retained placenta	1		
		Ruptured uterus and vagina ...	1		
		Do. vagina	3		
		Prolapse of funis	4		
				11	30
Cephalic Version.	Difficult	Brow	1		
		Face	2		
				3	
	Preternatural	Compound (1)	2		
				2	5
Podalic Version.	Difficult	Head presenting, forceps failed (6).	4		
				4	
	Preternatural	Upper extremity	5		
		Abdomen	1		
		Head and hand (1)	1		
				7	
	Complex	Plural births	1		
		Placenta prævia	5		
		Puerperal convulsions	1		
		Arm and funis	3		
		Prolapse of uterus	1		
				11	22
Decapitation.	Preternatural	Arm	2		
				2	
	Complex	Accidental hæmorrhage (side) ...	1		
		Ruptured ulterus	1		
		Plural births (arm and funis) ...	1		
				3	5

Class.	*Division.*	*Sub-Division.*			
Extraction ..	Preternatural ...	Breech (2)	7		
		Foot (3)	5		
		Breech and foot	1		
				13	
	Complex	Plural births	2		
		Placenta prævia	2		
		Post-partum hæmorrhage (1) ...	...		
		Accidental hæmorrhage	1		
		Retained placenta (1)	2		
		Ruptured vagina (1)	...		
		Puerperal convulsions	1		
		Dysentery	1		
		Liver, acute atrophy of	1		
				10	
					23
Gastrotomy ...	Complex	Ruptured uterus and vagina ...	1		
				1	
					1
Induction of Labour.	Abortion	Contracted pelvis	1		
		Putrid fœtus	1		
				2	
	Complex	Anæmia anasarca	1		
		Liver, acute atrophy of	4		
				5	
					7
					259

The total number of confinements was 1,587 against 1,486 the year previous. The monthly average number was 132·25, this being an increase of 16·3 per cent. over the average of the last five years. The smallest number of deliveries in any one month was 93 in February and the largest 174 in September.

Races and Caste.—An increase in the percentage of Mahomedans still continues. Caste Hindus have also increased 4 per cent. over the admissions last year.

Europeans	9 =	0·56 per cent.
East Indians	135 =	8·47 do.
Native Christians	207 =	13·04 do.
Mahomedans	65 =	4·22 do.
Hindus	422 =	26·59 do.
Pariahs	749 =	47·12 do.

Deliveries and their Classification.—The classification of the deliveries is shown in the following table. 1,585 women were delivered in hospital or were brought in immediately afterwards. Two died undelivered. Of these 1,585, 1,230 were at or near full time, 292 were premature, and 65 were abortions. Excluding abortions the proportion of head presentations including face and brow was 93·3 per cent. The percentage of births during successive quinquennial periods shows the greatest fecundity of natives to occur between the ages of 20 and 24 years :—

Age	15 to 19.	20 to 24.	25 to 29.	30 and above.
Number of women ...	242	540	339	466

Natural labour	1,166 =	73·54 per cent.
Difficult do.	151 =	9·51 do.
Preternatural do.	52 =	3·27 do.
Complex do.	153 =	9·64 do.
Diseases of pregnancy	65 =	4·04 do.
	1,587	100

I.—Natural Labour.

There were 1,166 cases of natural labour, the proportion being to other classes 73·54 per cent. The following tables show the ages, number of pregnancy, and duration of labour among the 1,166 cases of natural labour :—

Ages	15	16	17	18	19	20	21	22	23	24	25	26	27	28	1,166
Number of women	5	23	27	93	24	130	28	106	16	128	42	92	6	101	
Ages	29	30	31	32	33	34	35	36	37	38	39	40	44	48	
Number of women	20	143	3	27	4	89	15	7	1	7	6	19	1	1	

Number of Pregnancy	1	2	3	4	5	6	7	8	9	10	11	12	13	16	Total 1,166
Number of women	283	205	198	144	119	80	60	37	28	8	1	1	1	1	

Hours in labour ...	Under 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 12	12 to 18	18 to 24	Unknown.	Total 1,163
Number of women ...	...	2	58	120	154	140	520	145	24	(3)	

The ages are merely approximative and calculated from the woman's recollection of the length of time since her attainment to the state of puberty, such being placed at 14 years. More accurate information than the above is not generally obtainable.

The percentage of primiparæ was 24·27.

The average duration of labour was 8 hours.

The mortality was *nil*.

II.—Difficult Labour.

In this division there were 151 cases, viz., tedious 6 and laborious 145.

(*a*). *Order I.—Tedious Labour.*

Six labours extended over 24 hours in which delivery was accomplished by the natural powers unaided. The delay occurred in the first stage. Five were primiparæ. Five children were born alive, 4 males (2 premature) and 1 female ; 1 male was putrid.

Mortality in this order *nil*.

(*b*). *Order II.—Laborious Labour.*

In this class, which represents cases in which the head presented without complication and required artificial delivery, there were 145 cases, a considerable increase over the previous year. The delay in these cases generally occurred in the second stage and 18 were suffering from fever on admission. Many had been maltreated at their own homes by native midwives, their chances of doing well after delivery being thereby considerably decreased.

The ages, number of the pregnancy, and duration of labour are noted in the following table :—

Ages of women	15	17	18	19	20	21	22	23	24	25	26	28	29	30	32	34	35	36	40	42	44	45	Total 145
Number of women ...	2	3	15	6	18	3	6	2	13	2	10	13	2	14	3	18	3	4	5	1	2	...	

Number of pregnancy ...	1	2	3	4	5	6	7	8	9	10	11	12	Total 145
Number of women ...	66	19	13	12	5	8	11	6	1	3	1	...	

Hours in labour ...	5 to 6	6 to 12	12 to 18	18 to 24	24 to 30	30 to 36	36 to 42	42 to 48	above 60	Total 145
Number of women ...	3	38	56	13	17	9	1	3	5	

In the following table the mode of delivery and the result to the mothers and children in difficult labour is shown :—

Mode of Delivery.	Number of Cases.	Mothers.		Child alive.		Child still.	
		Recovered.	Died.	Male.	Female.	Male.	Female.
Natural powers	6	6	...	4	1	1	...
Barnes' elastic bags	1	1	...	1	...	...	...
Forceps	118	115	3	57	46	11	4
Version	7	7	...	...	5	...	2
Do. and forceps	3	3	...	2	...	1	...
Do. and craniotomy	3	2	1	...	...	3	...
Craniotomy	1	1	...	...	...	1	...
Cephalotripsy	12	7	5	...	...	8	4

Excluding preternatural and complex labours and diseases of pregnancy the proportion of artificial deliveries is 1 in 9 which is rather more than the last and preceding years, the proportion of craniotomy and cephalotripsy deliveries is less than in any previous year. It will be seen that in nearly half of the artificial deliveries the subjects were primiparæ.

The mortality of laborious labour was 1 in 16 which is probably not very high when the nature of the cases is considered. In 7 out of the 9 fatal cases there was fever on admission, most of them had been grossly neglected or maltreated at their own houses. The average duration of labour before delivery was effected in all these cases was 40 hours—*vide* Cases Nos. I to IX.

There were 118 forceps deliveries, the mortality being 1 in 39⅓, and in 3 delivery was effected by forceps after version. In 7 cases version was performed, the mortality being *nil*.

Mutilation of the head was practised in 16 cases, the mortality being 1 in 3. In several of these cases the child was known to be dead and cephalotripsy was performed in the interests of the mother.

The mortality of children in forceps deliveries was 1 in 7·8. In many cases the life of the child was in peril on admission.

In delivery by version 7 children were born alive and 2 still.

The proportion of male to female children delivered artificially was as 4 to 3.

III.—Preternatural Labour.

There were 95 labours in which some other part than the head presented. Fifty-two of these were uncomplicated, and 43 are included in complex labours.

The result in the 52 uncomplicated preternatural labours is shown in the following table :—

Presentation.	Number of Cases.	Mothers.		Children.		
		Recovered.	Died.	Alive.	Still.	Decomposed.
Breech	20	20	...	15	3	2
Foot	17	16	1	12	2	3
Upper extremity	8	8	...	3	3	2
Compound	7	7	...	3	3	1

Delivery occurred by natural powers in 21 (breech 11, foot 9, compound 1). It was terminated artificially in 31 instances. Extraction 13 (breech 7, foot 5, compound 1).

Delivery by forceps to the after-coming head was employed in 3 cases—breech 1, foot 2—and compound after cephalic version 1, total 4.

Version was employed in 9, compound 3, transverse 6.

Decapitation in 2, both arm.

Craniotomy in 3 (breech 1, foot 1, head and hand after cephalic version 1).

The mortality to the mother was 1—puerperal fever. *Vide* Case X.

Excluding deliveries in which the child was decomposed in inverted labours 27 out of 32 were born alive, and in arm and compound presentation 6 out of 12 were born alive.

IV.—Complex Labours.

Labours complicated with some accidental or unusual condition involving danger to the mother or to the child. Of these there were 153 cases, viz., plural births 29, hæmorrhage 35, retained placenta 9, puerperal convulsions 23, ruptured uterus and vagina 7, descent of the funis 14, other complications 36.

(*a.*) *Plural Births.*

Twenty-eight women were delivered of twins and 1 of triplets, total 29. In addition to this 3 plural births are included under convulsions, total 32. Thirty-nine of the children were male, 26 were female ; 58 were born alive (35 male and 23 female), 7 were still-born (4 male and 3 female). In 12 instances the children were both males, in 7 instances both females, in 12 they were male and female. The sex of the triplet was 3 males.

The following were the presentations :—

Twins.													Triplets.	
Double Cranial.	Head and Breech.	Head and Feet.	Head and Breech and Foot.	Head and Arm and Funis.	Head and Head and Hand.	Head, Hand and Foot.	Head, Funis and Head.	Head, Foot and Funis.	Breech and Breech.	Feet and Breech.	Feet and Funis, Head, Hand and Funis.	Total.	Head. / Feet. / Head.	Total.
11 (1)	4	5 (1)	1	1	1	1	(1)	1	1	1	1	28 (3)	1	1

Delivery was terminated by natural powers in 22 instances and by artificial means in 7 instances (excluding 2 included under puerperal convulsions). There were delivered by forceps 3, version 1, decapitation 1, extraction 2.

Mortality of mothers *nil*.

(*b.*) *Hæmorrhage.*

Thirty-five cases of hæmorrhage are reported, of which 3 were fatal, or 1 in 11. There were 17 cases of unavoidable hæmorrhage, of which 2 died. Four were delivered by natural powers—2 of them after dilatation with Barnes' bags, 4 by

forceps, 2 by craniotomy, 5 by version, 2 by extraction. One of the fatal cases was delivered by version, and the other by craniotomy. *Vide* Cases XI and XII.

Of the children 10 were born alive and 7 were still.

Three cases of accidental hæmorrhage occurred. One was delivered by natural powers, 1 (foot presentation) by extraction, 1 (side and hands) by decapitation.

Mortality was *nil.*

There were 15 cases of post-partum hæmorrhage; 10 were delivered by natural powers (9 head and 1 breech), 4 by forceps, 1 breech by extraction and forceps.

Mortality was 1. *Vide* Case XIII.

In many of these cases the amount of the hæmorrhage was trivial and not such as to in any way retard recovery. In the fatal case the woman was delivered and hæmorrhage occurred outside the hospital, and she was brought in still bleeding and in a collapsed condition. She rallied from the hæmorrhage, but subsequently succumbed to septicæmia, which was probably induced by the rough usage she had received in attempts made outside to remove the placenta.

(*c.*) *Retained Placenta.*

Nine cases are recorded under this head. In 7 there was simple retention, and in 2 there was morbid adhesion.

Five were delivered by natural powers, 2 (1 breech and 1 foot) by extraction, 1 breech by extraction and forceps, 1 by craniotomy.

Mortality was 1—cardiac syncope occurring in an unhealthy and weak woman. *Vide* Case XIV.

(*d.*) *Puerperal Convulsions.*

Twenty-three cases are recorded under this heading, and 3 are returned under diseases of pregnancy (1 in 61). Puerperal eclampsia is an affection frequently met with among Natives. Some of these cases were of a very severe description, and admitted in an unconscious condition when recovery seemed hopeless. It may be noted that in three cases there were twins, and that 17 out of the 26 treated were primiparæ.

Delivery was effected in 4 by the natural powers, by forceps in 17, extraction 1, version and forceps 1. Of the children 14 were born alive (7 male and 7 female); 12 were born still (6 male and 6 female). The ages and number of pregnancy are shown in the following table :—

Ages of women	16	17	18	20	22	24	25	26	28	30	Total 26.
Number of women	1	1	2	11	3	2	1	2	2	1	
Number of pregnancy	1	2	3	4	5	6					Total 26.
Number of women	17	3	2	2	1	1					

The mortality was 6, or 1 in 4⅓ (*vide* Cases Nos. XV to XX). The general line of treatment followed was the same as mentioned in the last report, viz., acceleration of labour by Barnes' bags, delivery by forceps, or craniotomy if the child was dead, with the exhibition of tinct. veratri vir. in large doses until the pulse rate was reduced, chloroform inhalation, and chloral and bromide of potassium in the intervals between the fits or after delivery.

In almost every case the convulsions ceased after the uterus was emptied. In a few cases purgatives were called for, but in no case was bleeding resorted to.

(*e.*) *Ruptured Uterus and Vagina.*

Two cases of ruptured uterus and vagina, 2 of ruptured uterus, and 3 of ruptured vagina are recorded, total 7, or 1 in 226.

The ages, number of the pregnancy, and the duration of the labours, so far as could be ascertained, are shown in the following table :—

Ages of women	24	30	36	38	Total 7.
Number of women	2	2	2	1	
Number of pregnancy ...	2	3	6	9	Total 7.
Number of women	1	2	3	1	
Hours in labour	12 to 18	18 to 24	24 to 36		Total 7.
Number of women	1	3	3		

The presenting part was 3 head, 1 face, 2 arm and funis, 1 head and foot. Three were delivered by cephalotripsy, 1 extraction and craniotomy, 1 decapitation, 1 gastrotomy, 1 died undelivered.

Mortality was 100 per cent. *Vide* Cases Nos. XXI to XXVII.

(*f.*) *Descent of the Funis.*

Nineteen instances of this complication occurred (1 in 87½); 5 of them are included in other orders. Of the 14 remaining 1 child was born alive and 13 still.

Delivery was effected by the natural powers in 4 (1 arm spontaneous evolution), forceps 2, version 3, decapitation 1, extraction and craniotomy 1, cephalotripsy 3.

The presentations and results to children are shown below :—

Presentation.	Number of Cases.	Children born		Children on Admission.	
		Alive.	Still.	Alive.	Still.
With head	6	...	6	3	3
Do. arm	6	1	4	1	4
Do. foot	3	...	3	...	3

The mortality to the mothers was 1—head and funis delivered by cephalotripsy. *Vide* Case No. XXVIII.

(*g.*) *Other Complications.*

Thirty-six cases are recorded under this head. In these cases the children were viable, pregnancy having advanced beyond the twenty-eighth week and the weight of the child over 78 tolas (2 lb.).

These include—

	No. of Cases.	Died.
Albuminuria with anasarca	3	...
Anæmia	2	...
Anæmia and anasarca	2	2
Dysentery	6	...
Famine diarrhœa	1	...
Gastro-enteric fever	3	2
Heart disease	3	1
Jaundice	1	...
Liver, acute atrophy of	5	2
Phthisis pulmonalis	2	1
Pneumonia	2	1
Prolapse of uterus	3	1
Thrombosis (arm)	1	...
Syncope, cardiac	1	1
Syphilis	1	1
Total	36	12

Diseases of Pregnancy (Abortions).

Sixty-five cases are recorded in all, the duration of the pregnancy being less than 28 weeks and the weight of the child less than 78 tolas or 2 lb.

	No. of Cases.	Died.
Simple abortion	32	...
Albuminuria with anasarca	1	...
Cystitis	1	...
Dysentery	3	1
Excess of liquor amnii	2	...
Gastro-enteric fever	1	...
Liver, acute atrophy of	2	1
Metro-peritonitis	1	1
Pneumonia	2	2
Privatio, syphilis	1	1
Puerperal convulsions	3	...
Puerperal fever (collapse)	1	1
Retained placenta	13	...
Vesicular mole	2	1
Total	65	8

The deliveries classed under general complications and diseases of pregnancy show no less than 20 deaths, which represent more than 40 per cent. of the total deaths. The most important diseases are dysentery and gastro-enteric fever, anæmia and anasarca, acute atrophy of liver, pneumonia. A short statement of each of these cases is appended (*vide* Nos. XXIX to XLVIII). Most of them were desperately ill on admission, in many the disease being aggravated by an insufficiency of nourishment and want of care.

DEATHS.

The causes of death are classed under three headings—

I.—Accidents of child-birth.
II.—Puerperal causes.
III.—Non-puerperal causes.

I.—Accidents of Child-birth.

Puerperal convulsions	6
Ruptured uterus and vagina	7
Placenta prævia	1
Cardiac syncope	2
	— 16

II.—Puerperal Causes.

Puerperal fever	0
Puerperal peritonitis	1
Do. septicæmia	14
Exhaustion	2
	— 17

III.—Non-puerperal Causes.

Anæmia and anasarca	2
Dysentery	1
Gastro-enteric fever	2
Heart disease	1
Liver, acute atrophy of	3
Pneumonia	3
Phthisis pulmonalis	1
Privatio syphilis	1
Metro-peritonitis	1
	— 15
Total	48

The following table shows the class of labour into which these 48 cases fall :—

I.—Natural labour		*Nil.*
II.—Difficult do.	Forceps	4
	Version and craniotomy	1
	Cephalotripsy	4
		— 9
III.—Preternatural		1
IV.—Complex	Hæmorrhage	3
	Puerperal convulsions	6
	Ruptured uterus and vagina	7
	Retained placenta	1
	Descent of funis	1
	Other complications	13
		— 32
Diseases of Pregnancy	Vesicular mole	1
	Metro-peritonitis	1
	Other complications	5
		— 7
Total		48

The ages, number of pregnancy, and duration of the fatal cases are seen in the following table :—

Ages of women	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	42	44	45	48	Total
Number of women	420						420					487						260													1,587
Number of deaths	...	1	...	5	...	7	...	4	1	7	1	2	...	4	1	5	...	1	...	2	2	3	...	1	...	...	...	1	...	...	
Total	13						13					12						10													

Number of pregnancy	1	2	3	4	5	6	7	8	9	10	11	12	13	16	Total.
Number of women	427	263	249	184	160	108	81	50	33	19	6	5	1	1	1,587
Number of deaths	14	8	8	6	2	5	2	...	2	...	1	...	...	...	48

Hours in Labour.	Under 24.		24 to 36.		36 to 48.		Above 48.		Unknown.		Total.	
	Number of Cases.	Died.	Number of Cases.	Died.	Number of Cases.	Died.	Number of Cases.	Died.	Number of Cases.	Died.	Number of Cases.	Died.
Natural labour ...	1,163	...	...	...	...	...	...	...	3	...	1,166	...
Tedious do.	...	...	2	...	3	...	1	...	...	...	6	...
Laborious do.	110	2	26	4	4	1	5	2	...	...	145	9
Preternatural labour ...	49	1	1	...	1	...	1	...	...	...	52	1
Complex do. ...	136	25	14	5	1	...	2	...	...	...	153	30
Diseases of pregnancy ...	...	...	...	...	...	...	...	...	65	8	65	8
Total ...	1,458	28	43	9	9	1	9	2	68	8	1,587	48

With regard to age—

27 per cent. of the total mortality occurred in women under 20 years of age.
27 do. do. do. from 20 to 25 do.
25 do. do. do. do. 25 to 30 do.
21 do. do. do. above 30 do.

The ratio of mortality to cases was—

Under 20 years ... ... 3·09 per cent.
From 20 to 25 years ... ... 3·09 do.
From 25 to 30 do. ... ... 2·5 do.
Above 30 years ... ... 3·8 do.

In regard to pregnancy—

29 per cent. of the total mortality occurred in first pregnancy.
17 do. do. second do.
17 do. do. third do.
10·4 do. do. after sixth do.

In proportion to cases the ratio of mortality was—

First pregnancy ... ... 3·2
Second do. ... ... 3·04
Third do. ... ... 3·2
Fourth do. ... ... 3·2
Fifth, sixth, seventh, eighth ... ... 0· to 4·6 in 6th pregnancy.
After eighth pregnancy ... ... 4·6
the highest being 6 per cent. in ninth pregnancy.

This shows, as in former years, an increased risk after the eighth pregnancy.

Respecting the duration of labour, excluding abortions, in the fatal cases—

In 58 per cent. labour was terminated in less than 24 hours.
In 19 do. do. between 24 to 36 do.
In 4·2 do. do. over 48 do.

In proportion to cases the mortality of women was—

Under 24 hours in labour ... ... 1·9 per cent.
Between 24 and 36 hours in labour ... ... 20·09 do.
Over 48 hours in labour ... ... 22· do.

Remarks on Fatal Cases.

Of the 48 deaths 2 occurred before delivery, 1 from ruptured uterus, the patient being moribund on admission, and 1 from anæmia and anasarca. In the latter case the woman was suffering from dyspnœa, seven months pregnant and child alive. A bougie was introduced to provoke uterine action, but the dyspnœa increased and death occurred before delivery could be effected. The remaining 46 cases show a mortality of 1 in 34·4, or 29·07 per mille. This mortality is about the same as last year, and is considerably less than the ratio of some preceding years.

As remarked in last year's report, the high death-rate which prevails is chiefly due to the large proportion of morbid labours. Nearly 27 per cent. of the cases treated were of this description. A high rate of mortality among the morbid labour

cases is accounted for by the fact that many are brought into hospital either grossly maltreated or neglected, and with scarcely a chance of recovery.

Of the 1,587 labours 1,059 were out-cases, admitted after labour had begun, 528 were in-cases, admitted before labour, sleeping at night in the rest-sheds, and generally coming under observation from the commencement of labour. Among the out-cases 44 died, while among the in-cases only 4 died—1 from acute atrophy of liver (Case No. XXXVI), 1 retained placenta and cardiac syncope (Case No. XIV), 1 preternatural labour, child putrid and septicæmia following (Case X), 1 head and funis presentation, cephalotripsy, and septicæmia following (Case XXVIII).

Puerperal Fever.

The number of cases of puerperal fever and septicæmia which occurred was 56, the same number as in 1878. This number includes, as on previous occasions, all forms of fever in the puerperal state which continued for more than 24 hours without intermission and required local as well as general treatment. At no time has the disease been in any way epidemic, and every case may be traced to autogenetic causes of blood infection. Of this number 32 had fever at the time of admission, owing generally either to protracted labour or to neglect or mismanagement at their own houses. In 25 the fever commenced after delivery in hospital. The cases were distributed over the whole year.

	Cases.		Cases.
January	4	July	4
February	...	August	6
March	2	September	7
April	12	October	7
May	2	November	7
June	3	December	2

There were 17 deaths from this cause. In 10 cases the women were admitted with fever; in 7 the fever appeared subsequent to admission. In all the fatal cases the labour was morbid. *Vide* Cases Nos. I, XI, XIII, XXVIII, XLIII, XLVII, XLVIII, XLV.

Of the remaining 39 cases only 4 are returned as natural labour, and these all recovered. The arrangements which are adopted to prevent the occurrence of the heterogenetic form of this disease were fully detailed in last year's report, and it will suffice here to say that the same rules remain in existence and have been stringently enforced. To the strict carrying out of these rules regarding the bedding, clothing, nursing, and seggregation of patients, the greatest importance is to be attached.

Children.

The produce of 1,520 deliveries, exclusive of deaths of two women dying undelivered and of abortions, was 1,550 children, there being 28 twin births and 1 triplet. One thousand two hundred and fifty-eight were born at or near the full term, 255 were premature, and 37 were decomposed or putrid. The datum on which these figures are arrived at is the weight of the children: those weighing 200 tolas and upward are considered as full term, 78 to 200 tolas are considered premature; those weighing less than 78 tolas are considered abortions. The births at full term show an increase of 13 per cent. over 1878, when it may be presumed that famine influences on the nutrition of the children *in utero* were present.

Sex.—810 were males and 740 were females. The proportion of male to female children is 103·4 males to 100 females, a proportion rather higher than in 1878, when it was remarked that the ratio of males to females was much less than usually prevails in this country.

Live and Still Births.—1,414 children were born alive and 136 still, including the 37 decomposed or putrid. The ratio of live to still births is 90·5 per cent., and of still births exclusive of decomposed children 6·3 per cent.

Sex of Still and Decomposed Children.—Of the 99 still births 64 were males and 35 females, a ratio of 182 males to 100 females; and of the 37 putrid births 22 were males and 15 females, a ratio of 135·5 males to 100 females.

The following table shows the classes of labour in which the still births occurred, and the large proportion of still males in difficult and in natural labours, the former being 68·7 per cent. and the latter 70 per cent.

Class of Labour.	Number of Cases.	Still.		Decomposed.	
		Males.	Females.	Males.	Females.
Natural and Tedious	1,172	7	3	9	7
Laborious	145	22	10	3	...
Preternatural	52	2	9	4	4
Complex	153	33	13	6	4
Total ...	1,522	64	35	22	15

Deaths of Children in Hospital.

During the year 52 children have died in hospital within the first ten days of life, this number being within one of the deaths of last year. The ratio of deaths to live births is 3·3 per cent., which is a slight decrease on 1878 and considerable decrease over 1877. Thirty-two of the children who died were premature, 12·5 per cent. of the 255 premature births. Special care is taken of premature children, and it is a very rare occurrence for a child to be found dead who was not known to be previously ill.

The following table shows the causes of death in the children:—

Atelectasis	8
Infantile convulsions	5
Peritonitis	1
Pneumonia	5
Trismus	1
Premature birth	23
Do. do. atelectasis	8
Do. do. ascites	1
Total ...	52

Obstetric Operations.

Two hundred and fifty-nine women were assisted in labour, 1 in 6·24.

Acceleration of Labour.—Labour was accelerated in the first stage by Barnes' elastic bags in 26; of these 4 were delivered without further aid, and all recovered; 5 were delivered by forceps, and recovered; and 17 were complex labours, of which 6 died—1 partial placenta prævia, 3 puerperal convulsions, 1 head and funis delivered by cephalotripsy, and 1 anæmia anasarca. *Vide* Cases Nos. XII, XV, XVIII, XX, XXVIII, XXIX.

Forceps was employed in 162 cases, 1 in 9·78. In 121 instances the labour was difficult, of which 3 died; in 4 preternatural; and in 37 instances the labour was complex, of which 5 died; total deaths 8, 1 in 20·25 (*vide* Cases Nos. II, V, IX, XV, XVIII, XIX, XX and XLVI). The children were born alive in 130 and still in 32; 15 of the latter were complex labours. The still births were 1 in 4. The position of the head and of the placenta in these cases was noted during labour as follows:—

—	First Position.	Second and Third Position.	Fourth Position.	Total.
Number of Cases	44	66	52	162
Placenta below Umbilicus ...	4	21	20	45

This table shows again what was pointed out last year, viz., the influence which the attachment of the placenta exerts in causing malposition of the head, and also how much more frequently instrumental aid is called for in occipito-posterior presentations than in occipito-anterior.

Version was performed in 35 instances, 6 cephalic and 29 podalic. Of the former the face presented in 2 and the brow in 1; 3 were compound presentations. Of the latter 10 were difficult head presentations, 8 were preternatural, and 11 were complex labours. In 4 of the cases delivery was terminated by forceps and 4 by craniotomy. Mortality of mothers 2. *Vide* Cases Nos. XII and XLIII.

Character of Labours in which Podalic Version was performed.	No. of Cases.	Number terminated by		Mother		Child	
		Forceps.	Craniotomy.	Recovered.	Died.	Alive.	Still.
Difficult	10	3	3	9	1	4	6
Preternatural	8	...	1	8	...	3	5
Plural births	1	...	...	1	...	1	...
Placenta prævia	5	...	1	5	...	3	2
Puerperal convulsions	1	...	...	1	...	...	1
Arm and funis	3	...	...	3	...	1	2
Prolapse of uterus	1	...	...	...	1	1	...

Craniotomy was resorted to in 30 instances, in 29 of which delivery was terminated by the Calcutta craniotrix. In 15 cases the fœtal heart was inaudible before the operation was resorted to. In 16 the labour was difficult; in 1 of these the forceps had been used unsuccessfully and in 3 version had already been performed. In 3 the labour was preternatural—1 breech, 1 foot, and 1 compound; in 11 it was complex—placenta prævia 2, retained placenta 1, ruptured uterus and vagina 1, ruptured vagina 3, and prolapse of funis 4. Mortality of mothers 11, or 1 in 2·7, viz., difficult labour 6, complex labour 5. *Vide* Cases Nos. I, III, IV, VI, VIII, IX, XI, XII, XXIV, XXVII, XXII.

Decapitation was performed in 5 cases of shoulder presentation—2 preternatural (arm), 1 accidental hæmorrhage (side and hands), 1 ruptured uterus (arm and funis), 1 plural birth (arm and funis). Mortality 1, ruptured uterus, arm and funis presentation, contracted pelvis. The arm had been broken by midwives before admission and the rupture of the uterus was not discovered before delivery. *Vide* Case No. XXIII.

Extraction.—In 23 instances delivery was completed by this means; 15 children were born alive and 8 still. Mortality of mothers *nil.*

Gastrotomy was performed in one case of ruptured uterus and vagina, and the woman died. *Vide* Case No. XXV.

Induction of Labour and Abortion.—This was done in 5 cases of complex labour, and in 2 cases abortion was induced. Of the former 1 was a case of anæmia and anasarca, which died undelivered (*vide* Case No. XXIX); and 4 were cases of acute atrophy of the liver, of which 2 died (*vide* Cases Nos. XXXV and XXXVI).

INTERNAL ECONOMY.

The daily cost of dieting each European and East Indian pregnant and confined woman has averaged Annas 4-3, and the average cost of each confinement was Rupees 4-4-4.

The daily cost of dieting each Native puerperal woman is Annas 2, and the average cost of each Native confinement is Rupees 2-4-11.

The recoveries as hospital stoppages from European and East Indian patients amounted to Rupees 317-14-0, or 51 per cent. of the total cost.

No recoveries have been made from Native patients.

The expenses of the Midwifery Pupil Class amounted to Rupees 2,040-6-5.

Twelve European and East Indian and 7 Native pupils have obtained diplomas as midwives.

One European and East Indian and 1 Native pupil have resigned or been dismissed, and 9 European and East Indian and 12 Native pupils are still under training.

(Signed) A. M. BRANFOOT, M.B.,
Ag. Superintendent, Lying-in Hospital.

MADRAS,
1*st January* 1880.

APPENDIX.

I.—*Labour Laborious, Cephalotripsy, Puerperal Fever* before admission, *Exhaustion.—Veeza Lutchee*, æt. 18, Hindu, pregnancy first. An out-case, was admitted 18th March 1879, at 10 A.M., 46 hours in labour, in a very low state; pulse 140, skin perspiring freely, and restlessness present. On examination the uterus is found to be in a state of spastic rigidity; fœtal heart inaudible; uterine souffle below umbilicus; os fully dilated, membranes absent; head presenting in the fourth position with a large scalp tumour and jammed in the pelvis; the vagina was hot and dry; the bladder distended, which was relieved by catheter. She was given brandy, and delivery by cephalotripsy was effected at 10½ A.M., the child being a male. The placenta was delivered 30 minutes after; no hæmorrhage occurred; uterus contracted firmly. The patient continued in a low condition and died at 5½ P.M., 7 hours after delivery.

II.—*Laborious Labour, Forceps, Puerperal Fever* before admission.—*Ilandum*, æt. 35 years, Pariah, pregnancy seventh. An out-case, admitted 6½ A.M., 30th April 1879, 21 hours in labour with her seventh child at full term. On examination os was fully dilated, membranes absent, said to have ruptured at commencement of labour; fœtal heart inaudible; head presenting and wedged in the pelvis in fourth position, with large scalp tumour; liquor amnii decomposed. The patient is feverish, temperature 100, pulse 120. She was delivered by forceps, a still male child being extracted. Placenta expelled 30 minutes after; no hæmorrhage occurred. The uterus was irrigated with carbolic acid lotion. On the 2nd May the lochia was offensive and slight fever was present with tenderness in the abdomen. The fever and tenderness increased, the temperature on the 5th being 102 in the evening. She sank and died at 8 P.M.

III.—*Labour Laborious, Cephalotripsy, Peritonitis.—Lutchmee*, æt. 18 years, Hindu, pregnancy first. An out-case, admitted at 1-50 A.M., 5th May 1879, 34 hours in labour with her first child. She was feverish, temperature was 100, pulse 160, and restlessness was present; fœtal heart was inaudible, uterus rigid, bladder much distended, was relieved by a catheter. She was delivered by cephalotripsy at 2-40 A.M., the child, a female, being putrid. Placenta was delivered 20 minutes after; uterus contracted firmly. The uterus was irrigated. On the day following delivery the abdomen was very tender and the patient was much weaker, pulse 140, lochial discharge very offensive. The patient died at 8-30 A.M.

IV.—*Labour Laborious, Cephalotripsy, Puerperal Fever* before admission.—*Cunnee*, æt. 18 years, Hindu, pregnancy first. An out-case, admitted 7 A.M., 29th May, three days in labour with her first child at full term. The patient was feverish, pulse was quick. On examination os was found fully dilated, membranes absent; head presenting in third position with a large scalp tumour; liquor amnii decomposed; pelvis contracted in the conjugate, the indirect measuring 3¾ inches; fœtal heart and uterine souffle inaudible. She was delivered at 8 A.M. by cephalotripsy. The placenta was cast half an hour after. On the 31st there was some tenderness over the uterus; the lochia was offensive, and the temperature was 100°. The tenderness increased on the 2nd June and the temperature rose to 105°, the lochia continued offensive. On the 4th June she seemed much better, but became worse on the 6th idem, when she was removed by her friends in a "dying" state.

V.—*Labour Laborious, Forceps, Puerperal Fever* before admission.—*Lutchmee*, æt. 34 years, pregnancy fourth, Hindu. An out-case, was admitted with fever at 2-45 P.M., 27th June 1879, 35 hours in labour with her fourth child at full term. On examination fœtal heart was heard on left side and uterine souffle below umbilicus; os was fully dilated, membranes absent; head presenting in the cavity in fourth position; liquor amnii was offensive and uterus rigid; the bladder being distended, was relieved by a catheter. She was delivered by forceps at 3-10 P.M. of a living female child. The placenta was cast 10 minutes after. There was no hæmorrhage. Uterus was irrigated with carbolic acid lotion. On the 28th the temperature was 100, pulse 120, weak, and pain was complained of in the abdomen, which was distended with flatus; the lochia was very offensive. On the 29th the fever increased, the lochia continued offensive, several attacks of rigor occurred. She gradually sank and died on the 2nd July.

VI.—*Labour Laborious, Contracted Pelvis, Forceps* failed, *Version* and *Cephalotripsy, Puerperal Fever.—Gungaboye*, æt. 28, Hindu, pregnancy second. An out-case, was admitted on 8th August at 5-40 A.M., 12 hours in labour with her second child at full term. On examination fœtal heart on left side; uterine souffle at fundus; os was fully dilated, membranes entire; head presenting. The membranes were ruptured and the head found in fourth position at the brim; the pelvis was contracted, the direct conjugate being 2½ inches. At 9-10 A.M. no progress having taken place, forceps was applied, but failed to deliver after 20 minutes' tentative efforts. Version was then performed with considerable difficulty owing to the rigid state of the uterus even under chloroform; the body was born and the shoulders were liberated, but the head required

perforation and compression before extraction. Placenta was cast 3 minutes after; no hæmorrhage occurred. Towards evening much tenderness was present over the uterus, which was considerably relieved by opium. On the 9th the temperature was 102°, lochia not offensive, and the abdomen was slightly tender. The patient became worse; the fever continued, the lochia being however healthy till the 12th, when it was observed to be offensive. She sank and died at 7-45 A.M.

VII.—*Labour Laborious, Forceps, Puerperal Fever* before admission.—*Fatima Bee*, æt. 26, pregnancy first, Mahomedan. An out-case, admitted in a low state at 7-15 A.M., 5th September 1879, 35 hours in labour with her first child at full term. Fœtal heart and uterine souffle were inaudible; os fully dilated, membranes absent; head presenting in the third position in the cavity; soft parts swollen, tense, and gangrenous. Had been attended by Native midwives outside. The bladder being distended, was relieved by a catheter. She was delivered of a still child by forceps. The perineum lacerated notwithstanding incision, the recto-vaginal septum also giving way. Placenta was expressed half an hour after; uterus was syringed out with carbolic acid lotion. The soft parts sloughed; some tenderness was present in abdomen, and her temperature rose to 105°. She was removed by her friends on the 14th instant.

VIII.—*Labour Laborious, Cephalotripsy, Puerperal Fever.—Vurdamah*, æt. 18 years, pregnancy first, Hindu. An out-case, was admitted at 11 P.M., 18th September, 72 hours in labour with her first child at full term. On examination soft parts were found much bruised and swollen, she having been attended by Native midwives. Fœtal heart and uterine souffle inaudible; os fully dilated, membranes absent, not known when ruptured; head presenting in the cavity in the first position; pelvis small; liquor amnii decomposed; bladder distended, was relieved by a catheter; uterus rigid. She was delivered at 1-45 A.M. by cephalotripsy, the perineum lacerating during delivery of the head. The placenta was cast 30 minutes after. The soft parts were swabbed with solution of perchloride of iron. The patient, who was very weak, was supported with broths and brandy. The uterus was irrigated with carbolic lotion after she was stronger. On the 20th her temperature was 100°; pulse 136; slight tenderness in abdomen and the lochia was offensive. She became worse and was removed "dying" on the 22nd instant.

IX.—*Labour Laborious, Forceps* failed, *Cephalotripsy, Puerperal Fever.—Nynabye*, æt. 20 years, Hindu, pregnancy second. An out-case, admitted 9-35 A.M., 4th November 1879, 24 hours in labour with her second child at full term. On examination fœtal heart on left side; os fully dilated, membranes absent, said to have ruptured at commencement of labour; head impacted in the brim in fourth position with large scalp tumour; pelvis small; liquor amnii decomposed and offensive. Tariner's forceps failed to deliver, and she was delivered by cephalotripsy at 10-30 A.M. Placenta was cast half an hour after. On the evening of delivery the temperature was 102°, and on the 5th morning 103°; the abdomen was distended and tenderness over uterus was present. The fever continued, the lochia became offensive, and she was removed "dying" on the 8th November.

X.—*Labour Preternatural, Puerperal Fever.—Thoye*, æt. 22, pregnancy second, Hindu. An in-case, admitted 4th April 1879, 9 hours in labour with her second child in her seventh month. The os was fully dilated, membranes which were entire, were ruptured; the feet were found presenting. She was delivered 5 minutes after by the natural powers of a decomposed female child. The placenta was cast 5 minutes after; there was no bleeding. The uterus was irrigated with carbolic lotion 1 to 100. She continued to do well up to the sixth day of confinement, or 9th April, when fever occurred, the temperature being 100°; the lochia had ceased. On the 11th the fever increased, the temperature being 102·4°, pulse 108; there was no pain or tenderness over the uterus; there was nausea present and three round worms were passed. On the 12th the temperature was 103·6° and pulse 104; there was no offensive discharge; the uterus was small, tongue dry and brown, and bowels were moved thrice, the motions dark-coloured, twelve more worms being passed. On the 14th the fever continued, being reduced by cold bath. Hæmatemesis occurred at 11 A.M., 4 or 5 oz. of blood being vomited. The patient gradually sank and died.

XI.—*Partial Placenta Prævia, Craniotomy, Puerperal Fever.—Jana Bee*, age 24, Mahomedan. An out-case, admitted 5-15 P.M., 14th April 1879, 14 hours in labour with her fourth child, and in seventh month of pregnancy. Fœtal heart was inaudible; uterine souffle over the pelvis; os two-fifths dilated, membranes entire; head presenting, and a portion of the placenta was felt at the os; uterine action was feeble. At 5-40 P.M. some hæmorrhage occurred, and the membranes were ruptured and a tight binder applied. The os dilated slowly, and as she was becoming warm and her pulse frequent she was delivered by cephalotripsy at 4 A.M., 15th. Placenta cast half an hour after; no hæmorrhage occurred. She did well on the 16th, but on the 17th the lochia became offensive and the temperature was 100·2°; some tenderness was present in abdomen. She became worse and was removed by her friends in a "dying" state on the 22nd.

XII.—*Partial Placenta Prævia, Version and Craniotomy, Hæmorrhage.—Auricum*, æt. 24, Native Christian, pregnancy second. An out-case, was admitted 8-40 A.M., 14th August, 7 hours in labour. She is stated to have had attacks of bleeding, but at present there is none and the pulse is good. Fœtal heart and uterine souffle inaudible; os three-fifths dilated, membranes absent; right shoulder presenting in the first position with a large flap of the placenta posteriorly,

promontory of the sacrum was forward and the pains were feeble. The os was dilated with Barnes Bag No. 5 and version performed with much difficulty, the head refusing to go up; the liberation of the arms required more than usual trouble, and the head would not come through without perforation. The patient became restless and the uterus was relaxed. Tinct. ergotæ 3 i was given and the placenta extracted. Brandy and milk were freely given. She sank and died at10 A.M.

XIII.—*Post-partum Hæmorrhage* (outside), *Puerperal Fever.—Mrs. Cheeks*, æt. 44, East Indian, pregnancy eleventh. An out-case, was admitted 2½ hours after delivery in a collapsed state at 3-30 A.M., 5th October 1879, having been bleeding. On examination she is found to be cold and clammy; pulse almost imperceptible; the uterus found large, the placenta being retained. The cervix was prolapsed and much bruised by attempts made before admission to remove the after-birth. She was given some brandy and milk and the placenta was removed by the hand, patient being under chloroform. She continued restless all day and was supported freely. On the 7th she had fever; temperature was 101·2° and pulse 152. On the 8th the lochia was offensive; the fever and offensive discharge continued, with tenderness in the abdomen, and she died on the 19th at 3 A.M., diarrhœa having occurred for three days prior to her death.

XIV.—*Labour Complex, Retained Placenta, Cardiac Syncope.—Ponee*, æt. 24 years, pregnancy third, race Pariah. A weak woman. An in-case, was admitted into the labour ward at 1 A.M., said to be 13 hours in labour with her third child in full term. On examination fœtal heart was inaudible; uterine souffle below umbilicus; os was three-fifths dilated, membranes absent, not known when ruptured; head was presenting in the cavity in the first position. Os was fully dilated at 2 A.M. and a female child was born still at 3-30 A.M. Liquor amnii was decomposed and offensive. Placenta not having been cast in 30 minutes, expression was tried and failed; placenta was then removed by the hand, the placenta being attached low down. At 4-30 A.M. the patient became restless, some bleeding occurred now, and the pulse became almost imperceptible. Brandy was freely administered, but she sank and died at 6-35 A.M. *Post-mortem* revealed that death was caused by cardiac syncope occurring in an unhealthy and weak woman who was in a state of semi-starvation.

XV.—*Puerperal Convulsions, Forceps.—Thoyee*, æt. 18, Hindu, pregnancy first. An out-case, admitted 2 P.M., 6th June, 17 hours in labour with her first child at the full term. On examination fœtal heart on the right side and uterine souffle on left side below umbilicus; os two-fifths dilated and rigid, membranes absent, not known when ruptured; head presenting in the brim in third position; uterine action good. One-sixtieth grain of atropine was injected hypodermically and repeated after half an hour. No improvement took place, and at 4 P.M. tepid irrigation was employed against the cervix. At 7 P.M., as no progress had occurred, dilation by Barnes' bag was resorted to. During the artificial dilation a fit of convulsions occurred; chloroform was administered; and at 7-25 P.M. the os being four-fifths dilated, forceps was applied and a living female child delivered. Placenta was expressed in half an hour. The pulse was now 132, and was reduced to 60 after the administration of 5 drachms tinct. veratri viridis in 5 doses. The patient, who became unconscious after the fit, never regained her senses. She sank gradually and died 8-15 A.M. 7th. The urine contained nine-tenths of albumen.

XVI.—*Puerperal Convulsions.—Allamaloo*, æt. 36, Hindu, third pregnancy. An out-case, admitted at 12 noon, 18th June, in an unconscious state and in labour with her third child at full term. She was delivered immediately after admission of a still female child with placenta attached. From enquiry it is elicited that from 7 A.M., 18th, the time of commencement of labour, to the hour of admission, she has had ten epileptiform seizures. On admission she was very low, being perfectly unconscious, breathing heavy, and the pulse rapid and almost imperceptible: general anasarca was present. Broths and milk were frequently administered. She died at 3-45 P.M.

XVII.—*Puerperal Convulsions*, Confined outside.—*Mooneamah*, æt. 20 years, pregnancy second, Hindu. An out-case, admitted at 3-20 P.M., 11th August, suffering from puerperal convulsions, in an unconscious state. She was confined of a male still child on the way to hospital. The first convulsive fit is said to have occurred 12 hours before admission, and four more since that. On admission pulse was 136, temperature 103·6°. There was considerable œdema of the lower extremities and general anasarca. Urine almost solid with albumen. Soon after admission a fit occurred, when 3 i tinct. vera. vir. was administered. Convulsive seizures continued, partially averted by chloroform; the pulse became weaker, and brandy was administered. Unconsciousness continued, and she sank and died at 9-30 P.M.

XVIII.—*Puerperal Convulsions, Forceps.—Paravathy*, æt. 24, pregnancy first. An out-case, admitted 5 P.M., 28th August, in an unconscious state, having suffered from convulsions. Has had three fits since 2 P.M. On examination œdema of lower extremities present. Urine contains two-thirds albumen; fœtal heart faintly audible on right side; uterine souffle below umbilicus; os two-fifths dilated, membranes entire; head presenting. The membranes were at once ruptured and 3 i doses of tinct. verat. virid. ordered. The cervix was dilated artificially, and she was delivered at 7-20 P.M. by forceps of a still female child. Placenta was cast 15 minutes after. The pulse was reduced to 92 by the veratrum, but was weaker and brandy required to be given. Subsequently chloral and bromide were ordered. She remained unconscious and her temperature rose to 102·2°. She died at 5 A.M., 30th August.

XIX.—*Puerperal Convulsions, Forceps.—Ratha Bee,* æt. 26, Mahomedan, pregnancy first. An out-case, admitted 1-30 P.M., 14th November, 12 hours in labour, in an unconscious state, having had several convulsive fits since 3 A.M. Urine contains half its volume of albumen; legs and feet œdematous; fœtal heart and uterine souffle inaudible; os fully dilated, membranes absent; head presenting at the outlet in the first position; pulse 160, small. She was delivered at 2-5 P.M. by forceps of a still female child. She was supported with brandy and nourishment. She died at 3-50 P.M.

XX.—*Puerperal Convulsions, Forceps.—Lutchmee Bhoy,* æt. 34, Hindu, pregnancy fifth. An out-case, admitted at 12 noon, 2nd December, 36 hours in labour with her fifth child, in an unconscious state, having had a convulsive fit before delivery. On examination fœtal heart on the right side; uterine souffle below umbilicus; os admitting one finger, membranes entire, which were ruptured and head and hand found presenting. The hand was pushed up and cervix dilated by Barnes' bag, and delivery effected by forceps at 7-4 P.M., a male child being extracted alive. 12-30 P.M. patient had a fit and several others followed. She became slightly conscious, but was perfectly insensible—next morning. She sank and died at 4¼ P.M., 4th December. Treatment, tinct. verat. vir., brandy and nourishment.

XXI.—*Ruptured Uterus and Vaginæ, Cephalotripsy.—Cunacoo,* æt. 36, pregnancy ninth, Hindu. An out-case, admitted 4 P.M., 24th February, 36 hours in labour, in a state of collapse. Membranes ruptured 12 hours before admission, when all pains ceased immediately after a strong uterine pain, which was accompanied by an audible snap as if something had given way. Some hæmorrhage occurred soon after. On examination the child was felt in the abdominal cavity; the uterus was contracted in the left ilium, and the vagina was found ruptured in front, involving the uterus as well, but only slightly. She was delivered by cephalotripsy. She was removed "dying" at 7-15 A.M., 25th February.

XXII.—*Ruptured Vaginæ, Extraction and Craniotomy.—Cotachee,* æt. 40, Pariah, pregnancy third. An out-case, admitted 9-30 A.M., 9th June, 29 hours in labour with her third child at full term, in a low state. Has been attended by Native midwives outside. Uterine action absent, having ceased nine hours previously; fœtal heart and uterine souffle inaudible; limbs of the child are distinctly felt under abdominal walls and the form of the uterus is wanting. On examination os is found fully dilated, membranes absent, head and right foot presenting, and a rent was found in the vaginæ in front. Brandy was freely administered and delivery effected, after she had rallied, by extraction and perforation. She sank and died at 8-30 P.M.

XXIII.—*Ruptured Uterus* (arm and funis), *Decapitation.—Chowree,* æt. 22, Hindu, pregnancy third. An out-case, admitted 6 A.M., 4th February, 24 hours in labour with her third child, in a weak state, pulse 108, temperature 101°, and great tenderness present in abdomen, where the limbs of the child are distinctly made out behind the abdominal wall; the outline of the uterus is lost. On examination arm and funis presenting, the former broken by Native midwives in attempting to deliver; no rent could be detected in the vagina, but dark fluid blood was found to escape. She was delivered by decapitation of the child and perforation and crushing of the head. A rent was now discovered in the anterior wall of the body of the uterus. The placenta, which was in the abdominal cavity, was removed. The direct conjugate of the pelvis measured 3½ inches. The woman sank and died at 4 P.M.

XXIV.—*Ruptured Vagina, Cephalotripsy.—Venketamah,* æt. 30 years, Hindu, pregnancy sixth. An out-case, admitted 7-30 P.M., 4th December, 27 hours in labour with her sixth child and at full term of pregnancy. The patient is collapsed; uterine action absent, having ceased suddenly 13 hours before admission. Has been attended by Native midwives. Fœtal heart and uterine souffle inaudible; os fully dilated, membranes absent; face presenting in the cavity in second position. She was freely stimulated, and at 8-30 delivered by cephalotripsy. The placenta was removed, and the vagina was found ruptured across the posterior wall close to its junction with the uterus. The patient died an hour after delivery.

XXV.—*Ruptured Uterus and Vagina, Gastrotomy.—Nursamah,* æt. 36, pregnancy sixth, Hindu. An out-case, admitted at 3½ A.M., 30th August, 27 hours in labour with her sixth child, in a state of collapse. On examination the right hand and funis presented. Has been attended by Native midwives before admission. Uterine action absent; head of the child distinctly felt under the abdominal parieties. Being freely stimulated she rallied somewhat, and at 8-30 gastrotomy was performed, the child removed with the placenta from the abdominal cavity. The uterus and vagina were found ruptured on the left side, free oozing taking place from the torn edges. Solution of perchloride of iron was used to arrest bleeding. The abdomen was closed and the usual dressings applied. The patient died ten hours after the operation.

XXVI.—*Ruptured Uterus, Died Undelivered.—Coolamah,* æt. 38, Hindu, pregnancy sixth. An out-case, was admitted 5 A.M., 20th April, 12 hours in labour with her sixth child, in a moribund state. Has been attended by Native midwives before admission. Pains suddenly ceased six hours before admission. The abdomen is very tender and the limbs of the child distinctly felt under parieties of the abdomen. On a vaginal examination the head is presenting with a large scalp tumour in the cavity of pelvis in the third position; some dark blood escaped from vagina. The patient was freely stimulated, but she never rallied, the pulse remaining imperceptible. She died four hours after admission, her condition precluding operative interference to effect delivery.

XXVII.—*Ruptured Vagina, Cephalotripsy.—Kamatchee,* æt. 24 years, Hindu, pregnancy second. An out-case, admitted 6-30 A.M., 19th October 1879, 26 hours in labour with her second child at full term, in a moribund state. Pains are said to have ceased six hours before admission. Uterine souffle and fœtal heart inaudible; abdomen very tender and limbs of the child distinctly felt under abdominal parieties; head presenting in the brim in the fourth position. Failing delivery by forceps owing to pelvic deformity, craniotomy was resorted to and she was delivered of a female child. She died immediately after delivery. *Post-mortem* revealed a transverse rent in the vagina at its junction with the uterus behind. The direct conjugate measured 3 inches.

XXVIII.—*Labour Complex, Head and Funis, Cephalotripsy, Puerperal Fever.—Paupah,* æt. 28 years, Pariah, pregnancy second. An in-case, admitted into the labour ward at 10 A.M., 16th October 1879, 2 hours in labour with her second child at full term. Fœtal heart on the left side; uterine souffle below umbilicus; head presenting at the brim; no pains. Os admitting 1 finger. A stimulating enema was administered, a tight binder applied, and subsequently tepid irrigation was used against the cervix as it was becoming rigid. At 3-15 P.M. the os was of same size and the funis was found prolapsed, it was replaced by Roberton's apparatus aided by the postural method. At 3-30 P.M. Barnes' Bag No. 2 was introduced, and a 30-grain dose of chloral given. The cervix continued rigid, the internal os being spasmodically affected, and being only three-fifths dilated at 9-45 P.M. At 10-45 P.M. No. 5 Barnes' Bag was introduced and another dose of chloral administered. The patient slept pretty well during the night, scarcely any uterine action being present. At 6 A.M., 17th October, uterine action commenced, and at 7 A.M. the os being more than four-fifths dilated, she was delivered by cephalotripsy of a male child. The cervix lacerated on both sides. The placenta was cast 20 minutes after. A rigor occurred an hour after delivery, the temperature rose to 102·2° and the pulse 112. On the 19th the lochia became offensive, the temperature was 102°. The fever continued with offensive discharge, and she was removed in a "dying" state on the 25th October, ten days after delivery.

XXIX.—*Anæmia Anasarca, Induction of Labour.—Mrs. Omailee,* æt. 16, European, pregnancy first. An extremely anæmic woman, was admitted March 12th, 9 A.M., with dyspnœa. She is seven months pregnant with her first child; face is puffy, hands and feet œdematous. Has had fever every other day for the past two months (is residing in Ghooty). Urine is non-albuminous; pulse is small, 130; heart's action weak and a bruit is heard with first sound at the base and continued along the vessels; spleen is somewhat enlarged; child is alive. It was deemed advisable to induce labour, and a bougie was introduced between membranes and wall of the uterus. Uterine action set in at 3 P.M. and continued up to 8 P.M. slowly, when dyspnœa increased. Liq. ammonia ♏x was given frequently. At 9½ P.M., as no progress had taken place in dilatation, and as the patient was becoming worse, it was decided to accelerate labour. Barnes' Bag No. 2 was introduced and distended. The dyspnœa increased and her pulse became imperceptible. She died at 10½ P.M. undelivered, her condition precluding any further accelerative measures.

XXX.—*Anæmia Anasarca.—Rungum,* æt. 22, Hindu, pregnancy second. An out-case, admitted 10 A.M., 1st September, with cough and anasarca, and in her seventh month of pregnancy with her second child. Has had fever for past 13 days. Patient is very anæmic; heart sounds accelerated; pulse quick and compressible; no fœtal heart audible. She has a cough and expectorates mucus. Loud rhonchi at apices of both lungs. The patient continued in much the same condition till the 7th, when she was delivered by natural powers of a decomposed female child weighing 150 tolas. On the 8th she was restless, breathing was distressing, and some tenderness in the abdomen. She died at 3 P.M.

XXXI.—*Abortion, Dysentery.—Ammacunnoo,* æt. 28 years, Pariah. An out-case, admitted 14th April, suffering with dysentery of a month's duration; motions are said to consist of blood and mucus and shreds of epithelium. She aborted soon after admission, the fœtus being expelled with the membranes entire. She became very restless after delivery, and great tenderness was present in the abdomen. The dysentery continued with fever and brown furred tongue, and she became worse. Was removed by her friends in a dying state on the 15th evening.

XXXII.—*Gastro-enteric Fever.—Sarah,* æt. 24, Native Christian. An out-case, admitted 22nd May, suffering with dysentery of ten days duration. Is seven months pregnant. Motions are frequent and contain slime and blood. She was delivered by natural powers 14 hours after admission of a female child weighing 139 tolas. The dysentery continued, fever occurred with tenderness in abdomen, the tongue was dry and furred, and she died on the 27th May, six days after delivery.

XXXIII.—*Gastro-enteric Fever.—Potteamah,* æt. 36, Hindu, pregnancy seventh. An out-case, admitted 16th June with dysentery of three days duration, in her ninth month of pregnancy. Pulse weak, 112; tongue dry and furred; motions are frequent, contain shreds and are very offensive. The dysentery continued, and she was delivered by natural powers of a living male child on the

20th June. On the 21st the temperature was 100·6°; pulse 116. Slight tenderness in the abdomen was present, and the tongue continued dry, furred. She became worse and died on the 23rd.

XXXIV.—*Heart Disease.—Minchee,* æt. 28, Pariah, pregnancy fourth. An out-case, was delivered by natural powers on the 6th September, after being 7½ hours in labour, the second stage lasting 20 minutes. She did well after delivery, and nothing was observed in or complained of by her on the 7th beyond a slight pain in the left shoulder, for which she was prescribed soap liniment. At 3 P.M. 7th, she became restless and soon after collapsed. The heart sounds were irregular and a bruit was heard in place of the first sound, loudest at the apex. Brandy and ammonia were freely given but she died at 4½ P.M. No *post-mortem* allowed.

XXXV.—*Acute Atrophy of Liver, Induction of Labour.—Rajoo,* æt. 24, Pariah, pregnancy second. An out-case, admitted 7 P.M., January 26th, in an unconscious state, having been so for three days. Is seven months pregnant. On examination fœtal heart inaudible, skin jaundiced as well as conjunctivæ; hyperæsthesia present; no fever; pulse 104, and of fair force; area of hepatic dulness considerably decreased, 2 fingers breadth of dulness only being present; bowels not moved for three days; urine scanty and high-colored, containing bile. It is stated by her friends that she had been complaining of giddiness and headache. Labour was induced at once and podophyllin and diaphoretics and diuretics prescribed. She was delivered 7 hours after admission of a still female child weighing 110 tolas. She remained unconscious and died at 2 A.M., 28th January.

XXXVI.—*Acute Atrophy of Liver, Induction of Labour.—Cullamah,* æt. 36 years, pregnancy third. An out-case, was admitted into hospital at 6 A.M., 6th January 1879, in a state of unconsciousness; pulse weak, 120; skin cold and bathed in perspiration; tongue foul; bowels loaded; conjunctivæ jaundiced; hepatic dulness decreased 1½ inches in the right mammary line. Is nine months pregnant; urine high-colored and contained bile acids. Labour was induced, and podophyllin with diaphoretics and diuretics prescribed. She was delivered 11 hours after admission of a still male child (231 tolas). The patient remained unconscious and died at 6 P.M., 13 hours after delivery.

XXXVII.—*Acute Atrophy of Liver, Abortion.—Baner Bee,* æt. 20, Mahomedan, pregnancy third. An out-case, admitted in an insensible state at 10 P.M., January 10th, her relatives stating that she had been so for 24 hours. Is six months pregnant. Fœtal heart inaudible; skin and conjunctivæ jaundiced; urine orange-colored and contains bile; area of hepatic dulness considerably decreased, scarcely 1 finger breadth of liver dulness being present; pulse quiet, 98; temperature normal. Has been complaining of headache for past week. She aborted 4 hours after admission. She remained unconscious and died at 4 A.M., 12th January.

XXXVIII.—*Abortion, Metro-peritonitis.—Thoyee,* æt. 32 years, Hindu, pregnancy fourth. An out-case, admitted 15th April 1879, four days after an abortion of a 3 months fœtus with retained placenta. The abortion appears to have been criminally induced, as the patient has not lived with her husband for some years. The patient is suffering with fever and much tenderness over uterus, and has been delirious. She was chloroformed and the placenta was removed in pieces. She was given opium every 2 hours. She became worse and died at 10-30 P.M., 19th April.

XXXIX.—*Labour Complex, Phthisis.—Vambly,* æt. 35, Pariah, pregnancy sixth. An out-case, admitted 13th October 1879 with diarrhœa and cough of two months duration, in her seventh month of pregnancy. She is very emaciated and has suffered privation. Dulness is present at the apex of left lung, extending for 3 inches downwards; on auscultation tubular breathing with crepitation is heard in the same situation. She continued in much the same state, with copious expectoration, night sweats and diarrhœa. On the 30th night, in an effort to cough, she brought up a large quantity of blood and expired immediately after.

XL.—*Labour Complex, Pneumonia.—Thursamah,* æt. 25, Hindu, pregnancy fifth. Admitted 5 P.M., 19th March, greatly broken down in health by fever for the past month and cough. She is 8 months pregnant; temperature 100·2°; pulse 120; respiration 36; conjunctivæ jaundiced; tongue pale, slightly furred; hepatic dulness normal; bowels relaxed; left lung, base is dull and crepitation is detected; urine scanty and high-colored; fœtal heart inaudible. She was delivered of a still male child on the 20th. She continued in much the same state till the evening of the 21st, when she became suddenly insensible and died at 1 A.M., 22nd.

XLI.—*Abortion, Pneumonia.—Mooneamah,* æt. 34, pregnancy ninth, Hindu. An out-case, was admitted 1st January 1879, 8 A.M., with difficulty of breathing, cough, and fever of a week's duration; she is 4 months pregnant and has uterine action. On percussion dulness at the bases of both lungs is detected and crepitation is heard in the same situation. She aborted 10 hours after admission and became collapsed and died 2 hours after delivery.

XLII.—*Abortion, Pneumonia.—Chellee,* æt. 17 years, pregnancy first, Pariah. An out-case, admitted 20th June complaining of pain in chest of ten days duration. Breathing is hurried and painful, 60 per minute; pulse 130, full and bounding. Pneumonia of both sides was present, more especially on the left side. Ordered tinct. veratri virid. ♏xx every fourth hour with diaphoretics. At 10 P.M., twentieth day after admission, after taking two doses of the medicine,

she aborted a female child weighing 64 tolas, being born alive and lived for a few minutes. She was much in the same condition till the evening of the 22nd, when she became very restless and complained of suffocation. A dose of 20 grains of chloral was administered, which quieted her. At 11-20 P.M., when the nurse went to her bed, she was found dead.

XLIII.—*Labour Complex, Prolapse of Uterus, Left Shoulder Version, Puerperal Fever.—Paravathee,* æt. 28, Hindu, pregnancy third. An out-case, admitted 10-45 A.M., 2nd August, 11 hours in labour with her third child in the eighth month of pregnancy. On examination was found prolapsed, the cervix being external to vulva; os four-fifths dilated, membranes entire, ruptured during examination; left shoulder presenting in the second position; fœtal heart audible on right side; uterine souffle below umbilicus. At 11-30 A.M. Barnes' Bag No. 5 was introduced, which was expelled 10 minutes after. At 11-45 A.M. she was delivered under chloroform by version of a living male child. The cervix, which lacerated during delivery of the breech, was swabbed with perchloride of iron. She continued to do well for the first two days, but on the 24th her temperature was 102·2°; pulse 108; and the lochia was offensive. The fever increased, temperature on the 8th being 104·4° and the lochia continued offensive. Diarrhœa set in, motions being passed involuntarily. She was removed in a dying state on the 10th.

XLIV.—*Privatio, Syphilis, Induction of Abortion.—Lutchmee,* æt. 30, Pariah, pregnancy fourth. An out-case, was admitted 26th March in a very emaciated state suffering from open buboes, one in each groin, ulcers on the vulva, and four months pregnant. Has suffered privation for the past two months. She was ordered milk and broths with brandy, under which she became much stronger. On the 29th a bougie was introduced into the uterus with difficulty (owing to retroversion of the organ, which manual efforts had failed to replace) to induce abortion. She aborted at 4 P.M. The fœtus, a putrid one, was expelled with the placenta. She sank rapidly after delivery and died at 8 P.M.

XLV.—*Puerperal Fever, Collapse, Abortion.—Davanay,* Hindu, æt. 29, pregnancy sixth. An out-case, admitted 8 A.M. 26th January, suffering from fever of four days duration. She is very weak; temperature 102°; pulse 140. Is six months pregnant. No fœtal heart audible; no lung complication present. Ordered diaphoretic mixture. At 2 P.M. she was delivered of a putrid child weighing 71 tolas. The liquor amnii was very offensive. Placenta was cast by natural powers. She became collapsed after delivery, and sank and died at 4 P.M.

XLVI.—*Labour Complex, Forceps, Cardiac Syncope.—Chinnamah,* æt. 20, pregnancy first, Hindu. An out-case, admitted 12 noon, 11th December, 28 hours in labour with her first child at full term. Membranes absent, os almost fully dilated, presenting in the brim in the third position; fœtal heart audible on right side; pains feeble. A stimulating enema was administered and a tight binder applied. At 2½ P.M. the os was fully dilated and pains were stronger. At 5 P.M., no progress having taken place and the fœtal heart being weak, she was delivered by forceps, 5¼ P.M., of a living male child. The perineum being rigid, was relieved by incisions on the vulva. The placenta not being cast in half an hour, Cudé's method was tried, and failing to expel the placenta, the hand was introduced and the placenta was removed. No hæmorrhage occurred, but about half an hour after the removal of the placenta the patient became restless and soon sank and died at 6 P.M. No *post-mortem* allowed.

XLVII.—*Labour Complex, Syphilis, Puerperal Fever, Exhaustion.—Minchee,* æt. 22, Hindu, pregnancy first. An out-case, was sent from the Lock Hospital on 30th November, and delivered by natural powers of a premature female child soon after admission. She is suffering from syphilis, the vulva being covered with ulcers, and there is a purulent discharge from the vagina. On the 22nd December her temperature suddenly went up to 101·4°; the fever continued, the lochia became offensive, and she became gradually weaker and died on December 12th from exhaustion.

XLVIII.—*Vesicular Mole, Puerperal Fever.—Kamatchee,* æt. 20, pregnancy first, Hindu. An out-case, admitted 10 P.M., 13th August 1879, in her sixth month of pregnancy, complaining of pain in abdomen. On examination fœtal heart was inaudible; uterine souffle heard below umbilicus; os admitted 1 finger. At 2 P.M., 14th, profuse bleeding set in; the os was not more dilated. A sponge tent was introduced, which arrested the hæmorrhage, and subsequently seatangle tents were used to effect dilatation. The tents were expelled next morning together with large masses of cysts. The uterus was examined and some more cystic masses removed. Fever occurred in the evening, her temperature being 100·8°, and next morning it was 104·2°; the pulse small and quick, 116; lochia pale and scanty. On the 15th the lochia became offensive and the fever continued. She became worse and died on the 28th, symptoms of cardiac thrombosis having been apparent the day before death.

(Signed) A. M. BRANFOOT, M.B.,
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MADRAS,
1*st January* 1880.