

:

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•

1500g (WHO, 1976)
 2500g (Behrman, 1992).
 2/3 37 1/3
 (Small for gestational age) (, 1993).
 4-8%
 (, 1993).

(Valdes-Eapena & Arey, 1970).

가

가

가

가

가

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1993)

(, 1986: , 1990 : ,
 (, 1988)

1.

5531	1995	1	1	1997	12	31	3	365
10			406					

2500g

2.

10.%, 2, 1.7%, 1, 10.4%, 1.0%

(P=0.001).

3) 가 2, 12.4%, 11.7%

3, 9.4%, 6.9%, (P=0.034).

4) 57.0%

48.9% (P=0.025).

<Table 2> Comparison of obstetric characteristics between LBM & NBWI mother

Characrrisrics		LBM N (%)	NBWI N (%)	²	P
No.of delivery	0	197(54.1)	223(55.2)	41.15	0.001
	1	133(36.5)	87(21.5)		
	2	28(7.7)	89(22.0)		
	3 or more	6(1.7)	5(1.3)		
No. of previous LBWI	0	319(87.6)	396(98.0)	35.20	0.001
	1	38(10.4)	4(1.0)		
	2	6(1.7)	4(1.0)		
	3 or more	1(0.3)	0(0)		
No. of abortion	0	215(59.2)	217(53.7)	8.68	0.034
	1	69(19.0)	112(27.7)		
	2	45(12.4)	47(11.7)		
	3 or more	34(9.4)	28(6.9)		
Presentation	Cephalic	299(85.4)	373(95.4)	22.80	0.001
	Breech	47(13.5)	18(4.6)		
	Transverse	4(1.1)	0(0)		
Twin incidence	Single	299(85.4)	373(95.4)	54.10	0.001
	Twin	47(14.0)	2(0.5)		
	Triple	2(0.6)	0(0)		
Delivery type	Vaginal	153(43.0)	204(51.1)	5.01	0.001
	C/S	203(57.0)	195(48.9)		
No. of antenatal care	Regular	332(96.8)	359(91.4)	9.45	0.002
	Irregular	11(3.2)	34(8.6)		
Antenartal care hospital	Primary	139(41.0)	235(64.2)	0.89	0.001
	Second	4(1.2)	6(1.5)		
	Tertiary	196(57.8)	135(34.3)		

LBWI : low birth weight infant NBWI : normal birth weight infant

5) 가 13.5% 4.6%
(P=0.001).
6) 14.0% 0.5%
(P=0.001).
7) 96.8%
91.4% (P=0.002) 3
57.8% 34.3% (P=0.001).

3.

1) , 1995 6.3%, 1996 5.6%, 1997 7.7%
6.5% 1: 1: 1.6 (Table 3).

<Table 3> Annual, sexual frequency of low birth weight infant (N=361)

year	sex	LBWL		Total	Total live birth	%
		male	female			
1995		56	71	127	2,007	6.3
1996		49	55	104	1,836	5.6
1997		62	68	130	1,688	7.7
Total		167	194	361	5,531	6.5

LBWI : low birth weight infant % : NO. LBWI/T total live birth

2) 1 12.9%, 8 , 9 8.5%, 12 9.9% 가
7 5.8% (Table 4).

<Table 4> monthly frequency of low birth weight infant

frequency of LBWI	Month												Total
	1	2	3	4	5	6	7	8	9	10	11	12	
N	47	25	30	26	31	30	21	31	31	28	29	36	362
%	12.9	6.8	8.2	7.1	8.5	8.2	5.8	8.5	8.5	7.7	7.9	9.9	100

LBWI : low birth weight infant

3) 31 가 16.1%, 31⁺-35 가 30.7%, 35⁺-37 가 23.6%, 37 가 70.4% 37⁺ 29.6% (Table 5).

4) 2251g-2500g 38.1%, 2001-2250g 21.6%, 1751g-2000g, 16.5% 1000g 5.8% (Table 5).

<Table 5> Frequency of low birth weight infant by gestational age & birth weight (N=365)

Variable		N	%
Gestational age (weels)	27	18	5.0
	27 ⁺ -29	11	3.1
	29 ⁺ -31	29	8.0
	31 ⁺ -33	43	11.9
	33 ⁺ -35	68	18.8
	35 ⁺ -37	85	23.6
Birth weight (g)	37	107	29.6
	1000	21	5.8
	1001-1250	19	5.2
	1251-1500	25	6.8
	1501-1750	22	6.0
	1751-2000	60	16.5
	2001-2250	79	21.6
2251-2500	139	38.1	

birth weight (N=365)

5) 18 (4.9%) 6 (1.49%) (P=0.006).
 , 4 , 3 ,
 2 , , 1 ,
 , 2 , , 1 .

4.

1) 365 9.5%, 8.8% 가 9.2% (Table 6).

2) 가 27 64.7% 27⁺-29 63.6%, 29⁺-31 24.1%, 31⁺-33 7.0%, 35⁺-37 2.4% (P=0.0001).

3) 1000g 1001-1250g 47.4%, 1251-1500g 24.0%, 1501-1750g 9.1% 2000g (P=0.001).

<Table 6> Frequency of low birth weight infant by gestational age & birth weight (N=365)

Variable		No of LBWI	No of dead	Mortality (%)	P
Sex	M	167	16	9.5	0.8506
	F	193	17	8.8	
Gestational age (weeks)	27	17	11	64.7	0.0001
	27 ⁺ - 29	11	7	63.6	
	29 ⁺ - 31	29	7	24.1	
	31 ⁺ - 33	43	3	7.0	
	33 ⁺ - 35	68	0	0.0	
	35 ⁺ - 37	85	2	2.4	
	37 ⁺ - 40	97	3	3.1	
	40 ⁺	10	0	0.0	
Birth weight (g)	1000	20	11	55.0	0.0001
	1,001- 1250	19	9	47.4	
	1,251- 1500	25	6	24.0	
	1,501- 1750	22	2	9.1	
	1,751- 2000	60	2	3.3	
	2,001- 2250	79	1	1.3	
	2,251- 2500	139	2	1.4	
	Age of death (hours)	12		8	
	13- 24		3	9.1	
	25- 48		2	6.1	
	49		20	60.6	

LBWI : low birth weight infant

4) 12 24.2%, 13- 24 9.1%, 25- 48 6.1%, 49 60.7%

5) (12.1%), (6.1%), (36.4%), rrmth (30.3%), (8.2%), (3.0%)

5. 14.3%, 3.8%, 3.0%, 25.8%, 1.6%, 1.1%, 1.1% 2.5%, 1.9%, 33.1%, 6.1%, 4.9% 10.4%, 1.3% (Table 7).

<Table 8> Factors that influence to development of low birth weight infant

Variable	Odds ratio	C. L		P-value
		Lower	Upper	
Maternal age	1.052	1.014	1.090	0.0062
No. of delivery	0.082	0.685	0.985	0.0309
Previous LBWI	3.756	6.884	6.884	0.0001
Pre-eclampsia	2.766	1.056	4.621	0.0001
Anemia	6.277	1.382	28.510	0.0047
Oligohydramnios	3.199	1.141	8.970	0.0181
PROM	4.298	2.920	6.327	0.0001
Placenta Previa	5.144	1.927	13.729	0.0002
Abruptio placenta	10.478	2.414	45.477	0.0001
Fetal sex	1.402	1.054	1.863	0.0198
Fetal distress	2.833	1.551	5.173	0.0004
Cong. anomaly	3.485	1.358	8.809	0.0051

C. L : confidence limit

LBWI : low birth weight infant

PROM : premature rupture of membrane

1976 WHO 2500gm
37
가 가 가 가
가 가 가
(Fedrick & Anderson, 1976).

Donnely (1964), Hoffman Bakketeig(1984) 20 , 30
, 40

5.6 (1972) 5 2
가 (1988), (1990) 가 가
. 2 , 2
(1989)

가 (Eastman &Hellemann, 1980)

가

12.8%, (1993) 5.6% (1988) 7.8%, (1990) 6.5% (1970) 11.9%, (1982) 10.0%, (1991) 6.7%, (1993) 5.6% s . Cross(1971) Nelson (1983) 가

(1976) (1988) 1: 1: 1.16 가 1 12 가 (1997) 1, 8, 12 , (1976) 11, 12 가 (Scher et al, 1987)

(1976) (1982) 1501-2000gm 2001-2500gm 가 (1986), (1996) 37-40 가 (1982) 36-37 가 가 가 가

(1982)21.6%, (1986) 18.7%, (1993) 12.7% (1993) 9.2% (1972) 25.5%, (1986) 85.7% 1000gm 55% Nelson(1983) 97.1%, 27 64.71% 가 Nelson (1983) 67% (1982) 71.4% 가 24.4% (1986) 63.3% (1993)

1000gm 27 , 12 , , , 33 1501g (1993) 33 , 1501g 가 Valdes - dapena Arey (1970) 가 (1993) 가 (33.2%), 入 (14.3%), (10.4%), (6.1%) (1982) (14.2%), (10.6%), (9.4%), (1986) (53.5%), (27.1%), (16.8%), (15.6%), (1993) (29.1%), (19.2%), (18.1%) .

(Eastman & Hellemann, 1980)

(North, 1966).

(1988) , 24 35

odde tatio 10.47, 6.27, 5.14

1995 1 1 1997 12 31 3

5531 2500g 365 10

406

1.

- 1) 가
- 2)
- 3) 3

2.

- 1) 6.5% 1 , 12 가
- 2) 37 -40 2251-2500gm 가
- 3) 가

3.

9.2% 27 , 1000gm , 12

가

4.

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- Abstract -

Key concept : Low Birth Weight Infant

Clinical Observation on Delivery of Low Birth Weight Infant

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A clinical study was made on 365 low birth weight infant and 406 normal birth weight infant who had been born at Kangnam St. Mary's Hospital during past 3 years from Jan. 1, 1995 to Dec. 31, 1997. the data of this study were gathered through

reviewing of medical records.

1. Comparison of general characteristic with of obstetric characteristic

1) Old maternal age, previous abortion and previous LBWI delivery in the group of low birth weight infant(LBWI) mother were more prevalent than those in the group of normal birth weight infant(NBWI)mother

2) Cesarean section, abnormal presentation and multiple pregnancy in the group of LBWI mother were prevalent than those in the group of NBWI mother.

3) regular antenartal care and visiting rate of tertiary hospital in the group of LBWI mother were more prevalent than those in the group of NBWI mother.

2. Frequency of low birth weight infant

1) Annual average frequency of LBWI was 6.5% and monthly frequency was the highest in January and december.

2) The frequency of LBWI was the highest in 37-40wks of gestational age and was the highest in 2251-2500 gm of birth weight.

3) The frequency of congenital anomaly in the group of LBWI was more prevalent than that of NBWI.

3. Mortality rate of LBWI The mortality rate of LBWI was 9.2%. The highest mortality rate was noted before 27wks of gestational age, less than 1000gm of birth weight and within 12hrs of delivery.

4. The most common complication of pregnant women was pre-term labor, the most complication relating to placenta was premature rupture of membrane(PROM) and the most fetal complication was fetal distress in delivered LBWI.

5. Significant relating factors of low birth weight infant delivery were associated with maternal age, previous delivery, previous low birth weight delivery, pre-eclampsia, anemia, oligohydramnios, PROM, placenta previa, abruptio placenta, fetal sex, fetal distress and congenital anomaly.