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The Outcome Of Singleton Breech Delivery.

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THE UNIVERSITY HOSPITAL OF USM .

The University Hospital Kubang Kerian is the teaching hospital for the School Of Medical Sciences , Science University of Malaysia . It is situated in Kubang Kerian town about 7 kilometres from the state capital of Kelantan , Kota Bharu .

Kelantan , which is one of the thirteen states of Malaysia , has an area of 14,929 square kilometres and an estimated population of 1,215,950 in the year 1992 .

The population consists of multiracial groups , whereby the Malays constitute 92.9% , Chinese origin 5.4% , Indian origin 0.7% and others 0.9% .

The birth rate was 42.5 births per 1000 population in the year 1992 and a population growth rate of 2.6% per year . The percentage of hospital deliveries was 60.1% in the year 1992 with compared to only 25% in the year 1987 . Perinatal mortality rate and infant mortality rate have shown an

improvement i.e from 22.3/1000 live births and 20.3/1000 live births in the year 1984 to 14.6/1000 live births , and 12.0/1000 live births in the year 1992 , respectively . In the year 1992 , the population ratio to Health/Centre Maternal and Child Health Clinic was 23,384:1 . The population ratio to Community and Midwife clinic was 6,172:1 .

The University hospital has a total of 570 beds for surgical and medical wards . The Obstetric and Gynaecology department has a total of 128 beds with 72 obstetrical beds and 56 gynaecological beds . The labour room includes 8 low risk beds , 5 high risk beds and 2 intensive care beds . One operation theatre adjacent to the labour room is used for emergency obstetric operations .

The staff of the obstetric and gynaecology department consists of 5 lecturers , 5 registrars , 14 trainee lecturers , 3 medical officers and 6 house officers .

The department runs the following clinics :

Antenatal clinic:Saturday , Sunday and Tuesday.

Gynaecology clinic:Saturday and Tuesday .

Ultrasound clinic:Monday .

Specialised clinics ,

- i . *Oncology* Monday.
- ii. *Infertility* Wednesday.
- iii.*Postnatal clinic* Wednesday .
- iv. *Family Planning* Wednesday .

THE OUTCOME OF SINGLETON BREECH DELIVERIES IN
HUSM.

Introduction .

Breech presentations and breech births are reported to have increased morbidity and mortality when compared to cephalic presentation . Hall and Kohl , 1956 stated that the type of breech influenced the perinatal morbidity and the risk of cord prolapse with non-frank breech increased by six folds . There was also increased intrapartum and neonatal deaths with non-frank breech presentation .

The concept of elective caesarean section in all primigravida term frank breech needed in some to be reviewed . Caesarean section is absolutely necessary if the biparietal diameter exceeds 10 centimetres , with hyperextended head , and where inadequacy of pelvis is suspected . However , caesarean delivery is not associated with a lower risk of either perinatal mortality or intraventricular haemorrhage in very low birth

weight infants weighing less than 1500g (Denise M Martin et al , 1983) . It was noted that no significant differences found in the incidence of lower Apgar scores , traumatic birth injury , or requirement for neonatal resuscitation between those infants delivered via caesarean section and vaginal delivery .

For breech infant with weight over 3000g , the adjusted risk was 5.6 times greater for vaginal delivery as to caesarean section . The latter and appropriate manouvres are believed to improve perinatal outcome in the breech presentation .

Neilson et al (1970) found that perinatal mortality doubled if the weight exceeded 3900g . Vaginal delivery was more dangerous if the estimated fetal weight exceeded 3600g by palpation method or 4000g by modern ultrasound assessment (Rovinsky et al , 1973) .

In elderly primigravida with breech presentation , Snoek and Canon (1939) ; Racker (1943) found that there was an increased in

perinatal mortality with vaginal delivery but Hall and Kohl (1956) found that there was no increase in perinatal mortality , and the controversy continues .

The aim of this study is to compare the neonatal mortality and morbidity in breech delivery in relation to the modes of delivery , the experience of the accoucher , the weight of the babies and the parity of the mothers .

THE OUTCOME OF SINGLETON BREECH DELIVERY IN
HUSM .

Objectives .

To compare neonatal mortality and morbidity in babies presenting by the breech and delivered vaginally or by caesarean section .

To evaluate whether the experience of the accoucher alters the outcome of the babies .

To determine the appropriate mode of delivery with respect to the fetal weight .

To determine the mode of delivery in primigravida breech .

Methodology .

This is a retrospective study of breech deliveries at University Hospital USM for the period of 12 months , January to December 1992 . The information was obtained from the hospital record office and all the maternal case notes were reviewed . All singleton breeches were included in the study and those with multiple pregnancies were excluded .

The following particulars were noted in the study . They were the maternal age , gravida , parity , type of breech , past obstetric history of breech and period of amenorrhoea at labour . The onset of labour , either induced or spontaneous and the mode of the delivery plus the circumstances were observed .

Any associated factors for the occurrence of breech presentation , including uterine and fetal anomalies were taken into observation .

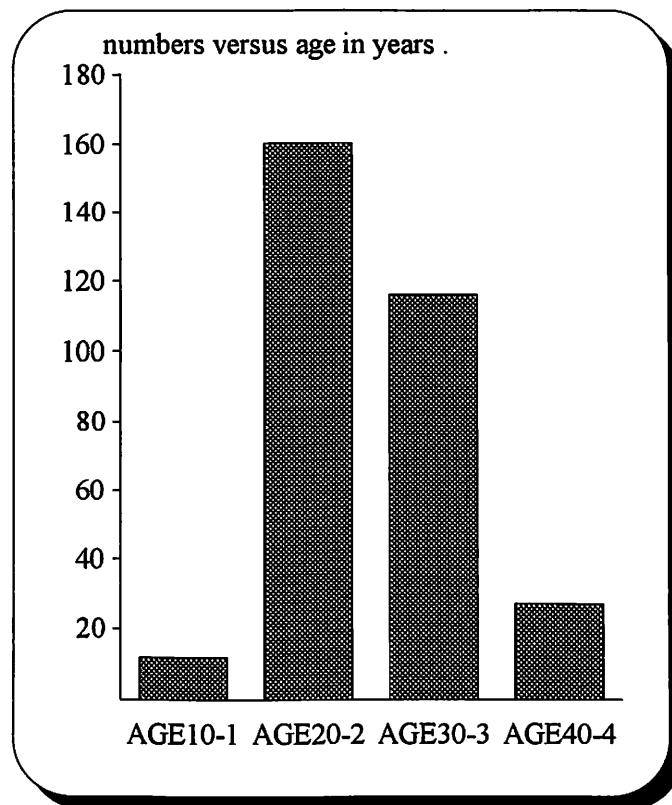
The condition of the baby at birth was recorded . The Apgar score <7 at 5 minutes was taken as an indicator of fetal hypoxia .

Chi-square test of statistical significance was used to analyse the data .

AGE

AGE IN YEARS	NUMBERS	PERCENTAGES
10 - 19	12	3.8
20 - 29	160	50.8
30 - 39	116	36.8
40 - 49	27	8.6

Figure 1 : Age



Results .

In 1992 , there was a total of 7890 deliveries in this hospital . Three hundreds and fifteen of the cases were breech deliveries , with the incidence of 3.9% .

Figure 1 showed the age distribution of the mothers recruited in the study . The maternal age ranges from 20 to 49 years with a mean age of 29.5 years . Fifty percents of the mothers were in the age group of 20 to 39 years . Teenage breech pregnancies accounted for 3.8% and those above 40

years of age were 68% of the total studied population .

PREVIOUS HISTORY OF BREECHES .

PREVIOUS BREECHES	NUMBERS	PERCENTAGES
1	22	7
2	11	3.5
3	2	0.6
4	1	0.3

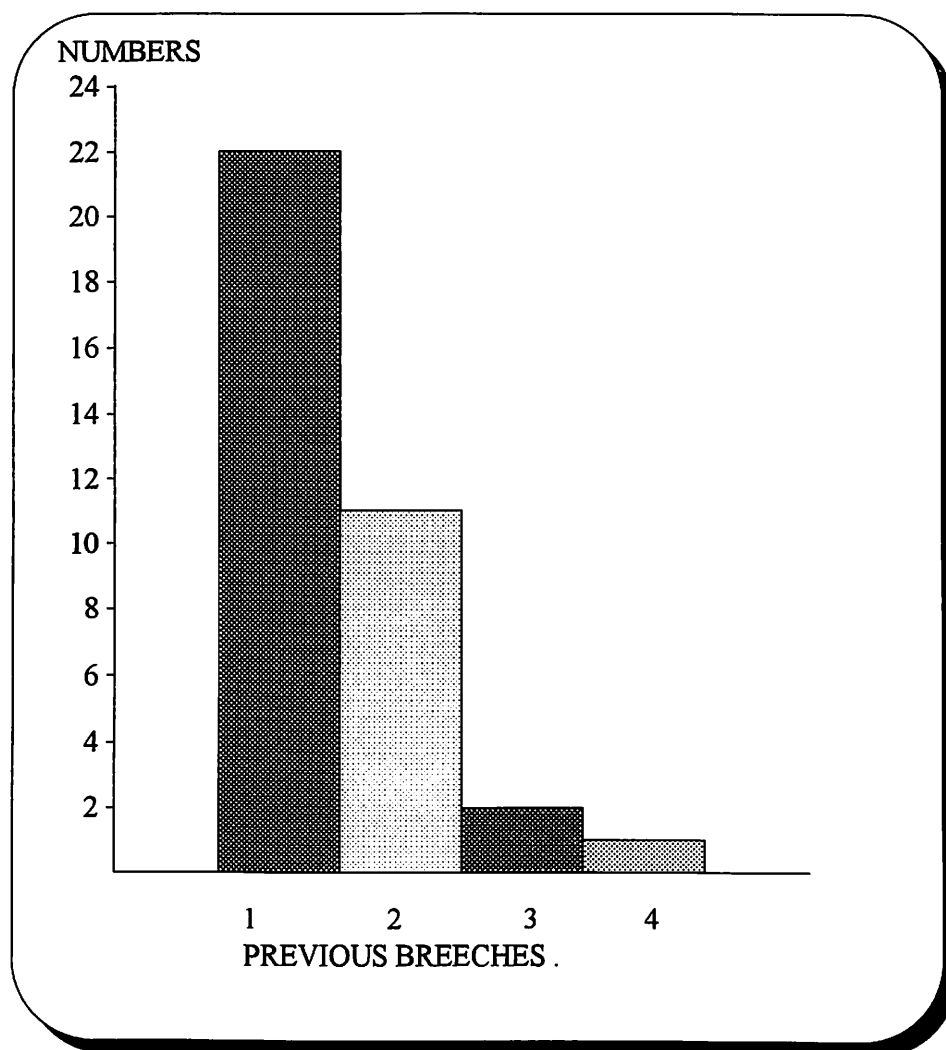


Figure 2 : Previous breeches .

The figure above showed the relationship of the incidence of breech presentation with past history of breech delivery . There were 22 cases (7%) that had a previous breech delivery and 11 had 2 previous breech deliveries . There was one patient who had 4 previous breech deliveries but was not associated with any abnormalities . She was a grandmultipara

with 8 previous vaginal deliveries . From the above figures , a recurrence rate of 11.4% was noted .

PERIOD OF AMENORRHOEA AT LABOUR .

POA	NUMBERS	%
28-32	10	3.2
33-37	66	20.9
38-42	232	73.7
>42	7	2.2

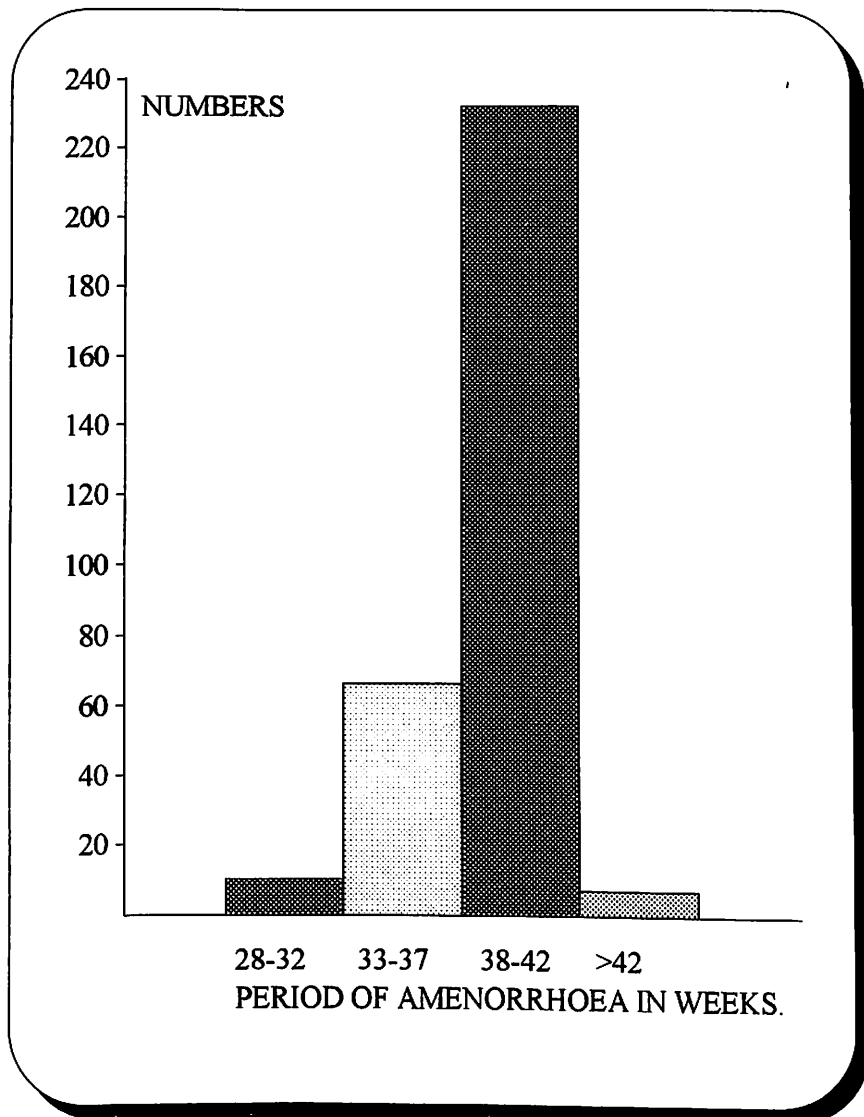


Figure 3 : Period of Amenorrhoea .

Figure 3 showed the duration of pregnancy at delivery . Two hundreds and thirty two patients (73.7%) were delivered between 38-42 weeks . A total of 7 patients were post term (2.2%) and 10 (3.1%) patients were less than 32 weeks . These were in accordance of the delivery of the general population where the study was conducted .

TYPE OF BREECHES Vs A/S <7 AT 5 MINUTES .

TYPE OF BREECH	%	A/S
EXTENDED	57	7
COMPLETE	20	2
FOOTLING	22	2

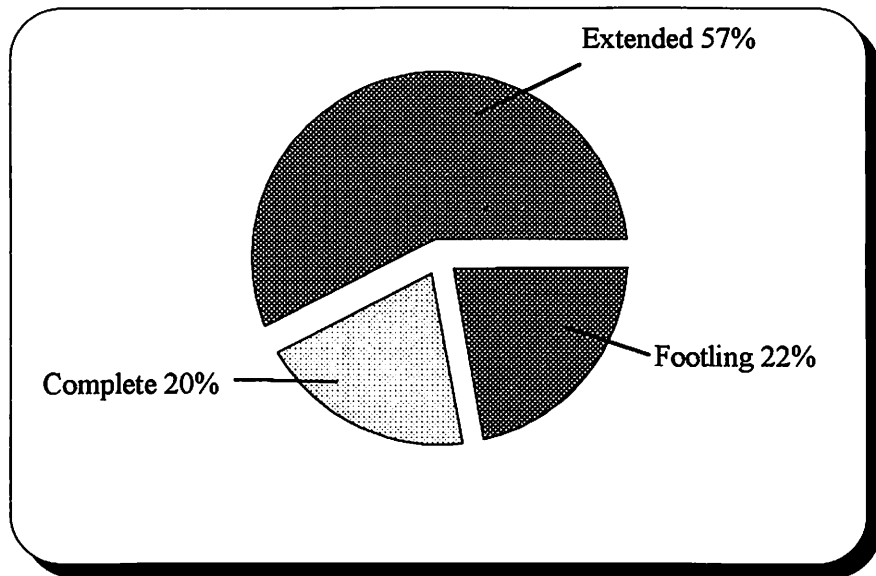


Figure 4 : Type of Breeches .

There were 315 cases recruited in the study . There were 11 cases of breech deliveries which had an Apgar score of <7 at 5 minutes . From the study it was noted that there was no significant difference in the outcome of the babies among the various types of breech deliveries ; extended , complete and footling breech . However in view of the small number of subjects in the study , these results should be interpreted with some reservation .

ONSET OF LABOUR .

Onset	Number	Percentage
Spontaneous	291	92.4
Elective caesarean and induced	24	7.6

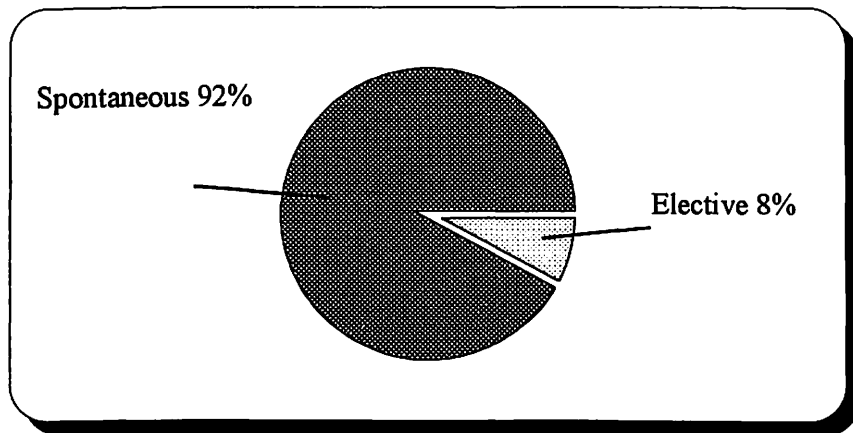


Figure 5 : Onset of labour .

Ninety two percents (291 patients) had spontaneous onset of labour . Twenty four patients (7.6%) required induction of labour . There were 4 patients from this group whose pregnancy had past their due dates .

MODE OF DELIVERY Vs APGAR SCORING AT 1 MINUTE .

MOde of delivery	Apgar score more than 7	Apgar score less than 7
Vagina route	44.4%	10.2%
Caesarean	37.8	7.6

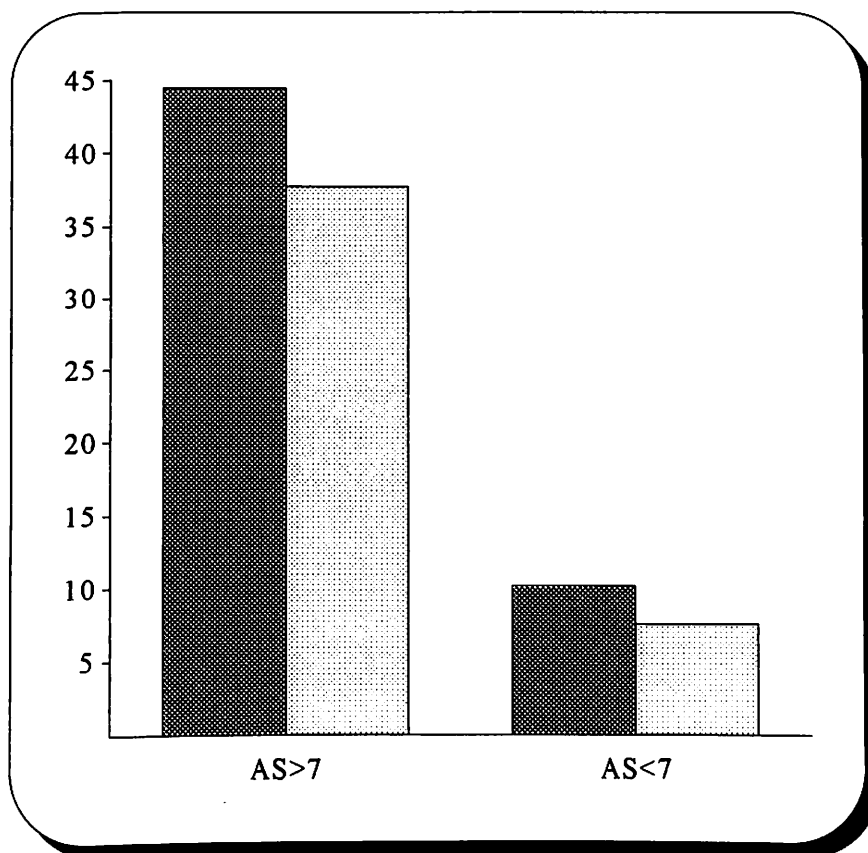


Figure 6 : Mode of delivery vs Apgar scores.

MODE OF DELIVERY Vs APGAR SCORE AT 5 MINUTES OF LIFE .

Mode of delivery	A/S>7	A/S<7
Vaginal route	51.7%	2.9%
Caesarean	44.4%	1.0%

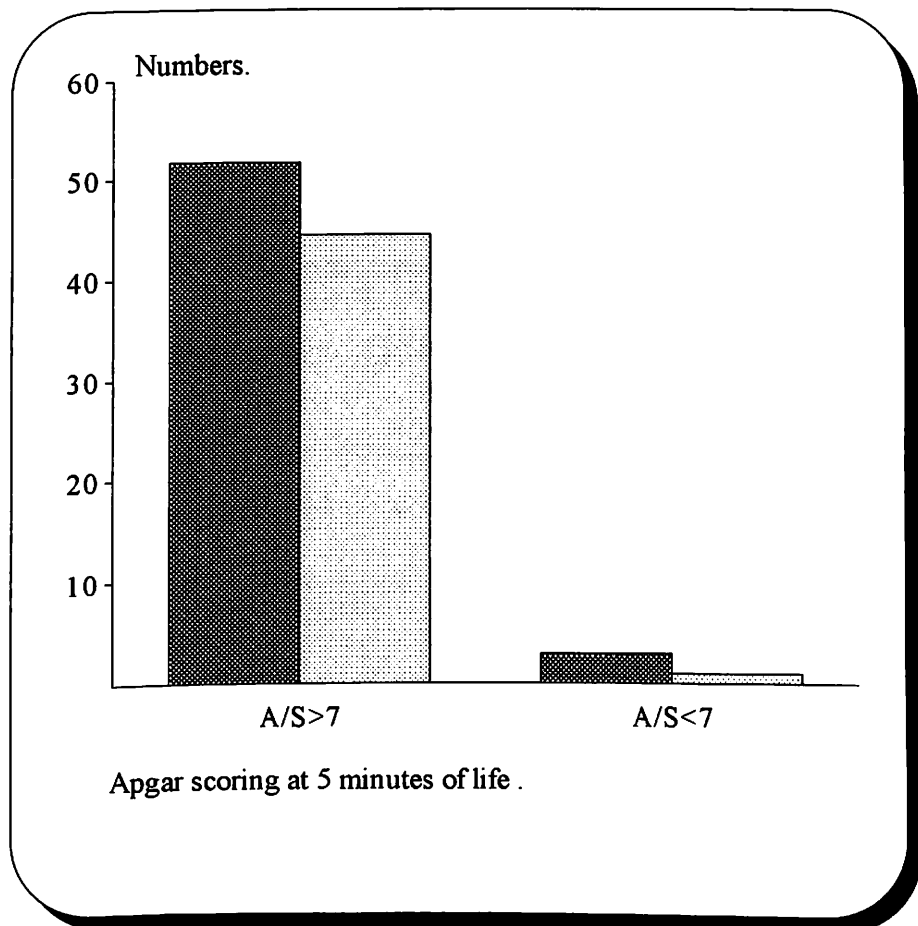


Figure 7 : Mode of delivery vs Apgar scoring .

MODE OF DELIVERY VS APGAR SCORING .

MOde of delivery	A/S<7 at 1 minute	A/S<7 at 5 minute.
Vaginally (172)	32	9
Caesarean section(143)	24	3

Figure 7a : mode of delivery vs Apgar scores at the respective minutes .

Figure 6 shows a relationship between mode of delivery and the Apgar score at 1 and 5 minutes . From this study there were 172 patients (54.5%) who delivered vaginally , while 143 patients (45.4%) delivered by caesarean section .

Emergency caesarean section was performed in 120 cases while elective were in 23 cases .

From a total of 143 cases of caesarean section , 37.8% had an Apgar score of >7 at 1 minute and 44.4% (140 cases) had an Apgar score of >7 at 5 minutes . Those with an Apgar of <7 at 1 minute

comprised of 7.6% (24 cases) , and those with an Apgar score of <7 at 5 minutes comprised of 1% (3 cases) .

For babies who were delivered vaginally , 140 cases (44.4%) had an Apgar score of >7 at 1 minute and 163 cases (51.7%) had an Apgar score of >7 at 5 minutes .

The Apgar score of <7 at 1 minute and <7 at 5 minutes in the vaginally delivered babies , there were 32 cases (10.2%) and 9 cases (2.9%) respectively.

However , there was no significant statistical difference in the mode of delivery . This is probably because the sample is small and majority are term pregnancies .

WEIGHT Vs CAESAREAN SECTION .

Weight (gm)	Numbers .
1000-1499	1
1500-1999	4
2000-2499	10
2500-2999	27
3000-3499	58
3500-3999	32
>4000	12