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INTRODUCTION

Preterm labour leads to perinatal morbidity and mortality. Administration of corticosteroids reduce the complications to the premature newborn.

OBJECTIVES

To study the distribution of preterm birth based on gestational age and birth weight and to evaluate any immediate adverse sequelae of preterm births.

METHODOLOGY

This is a retrospective review based on data from the National Obstetrics Registry from 1st January 2011 to 31st December 2012. A total of 260,959 deliveries were analyzed. In this study there were 452 cases of preterm birth which accounted for 0.17% of all deliveries. SPSS 20.0 was used for statistical analysis.

The newborns were divided into 3 groups .

- Patients in group 1 are those who received IM Dexamethasone 12 mg twice (n= 296)
- Patients in group 2 are those who received IM Dexamethasone 12mg once (n=121)
- Patients in group 3 are those who did not receive any Dexamethasone injection (n=35)

DISCUSSION /CONCLUSION

Dexamethasone injection for mothers in preterm labour had shown tremendous benefits to the premature newborn. With complete and partial dose of Dexamethasone more than 80% of babies had good outcome whilst in those who did not receive any dexamethasone more than half had a good outcome. This may be due to newborns with birth weight of more than 1500 gm and gestation 32 and more weeks at delivery in that group.

RESULTS

Table 1: Comparison among participating hospitals and completeness of Dexamethasone administration.

Participating hospitals	Group 1		Group 2		Group 3	
	n	(%)	n	(%)	n	(%)
Hospital Sultanah Aminah	50	53.8	29	31.2	14	15.1
Hospital Sultanah Bahiyah	11	78.6	2	14.3	1	7.1
Hospital Raja Perempuan Zainab II	15	83.3	3	16.7	0	0.0
Hospital Melaka	5	83.3	1	16.7	0	0.0
Hospital Tuanku Jaafar	9	90.0	1	10.0	0	0.0
Hospital Tengku Ampuan Afzan	0	0.0	0	0.0	0	0.0
Hospital Raja Permaisuri Bainun	7	70.0	3	30.0	0	0.0
Hospital Tuanku Fauziah	14	58.3	10	41.7	0	0.0
Hospital Pulau Pinang	9	90.0	1	10.0	0	0.0
Hospital Likas	8	61.5	5	38.5	0	0.0
Hospital Umum Sarawak	4	80.0	1	20.0	0	0.0
Hospital Tengku Ampuan Rahimah	91	62.3	37	25.3	18	12.3
Hospital Sultanah Nur Zahirah	17	68.0	8	32.0	0	0.0
Hospital Kuala Lumpur	56	71.8	20	25.6	2	2.6

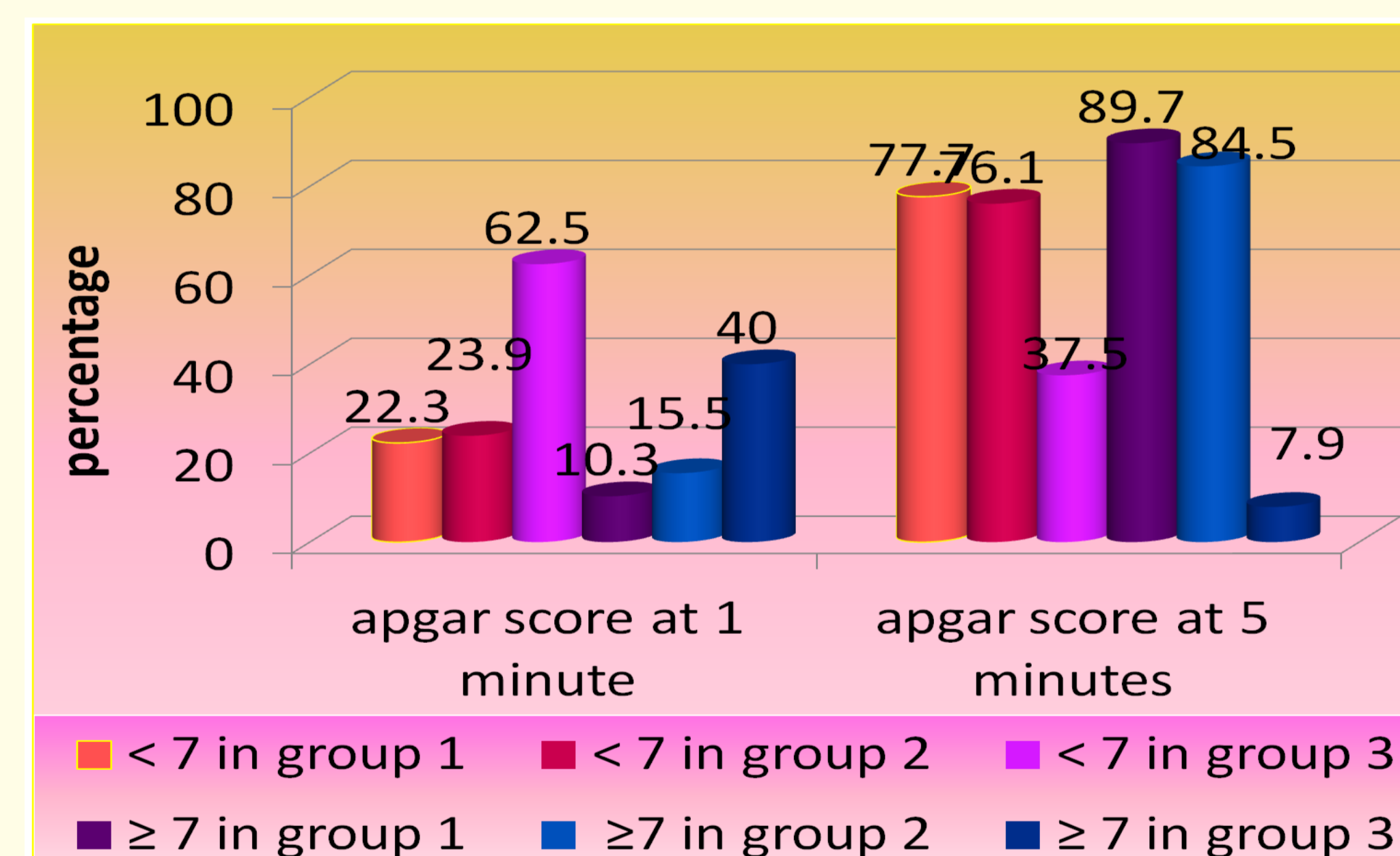
90% of premature babies from Hospital Tuanku Jaafar and Hospital Pulau Pinang had received complete doses of Dexamethasone. No data was captured from Hospital Tengku Ampuan Afzan in all 3 categories. Except for Hospital Sultanah Aminah, Hospital Sultanah Bahiyah, Hospital Tengku Ampuan Rahimah and Hospital Kuala Lumpur in all other participating hospitals the premature babies had complete or single dose of dexamethasone.

Table 2: Comparison of age, parity gestational age and birth weight

Variables	Group 1 Mean (SD)	Group 2 Mean (SD)	Group 3 Mean (SD)	p value
Age (year)	28.9 (5.96)	27.8 (6.79)	27.2 (6.34)	0.099
Gravid*	2.0 (2.00)	2.0 (2.00)	2.0 (2.00)	0.906
Parity*	2.0 (2.00)	2.0 (2.00)	2.0 (2.00)	0.883
Gestational age (weeks)	32.7 (3.27)	31.9 (3.83)	33.1 (3.99)	0.117
birth weight (g)	1914.6 (620.85)	1861.6 (715.72)	1911.6 (847.03)	0.762

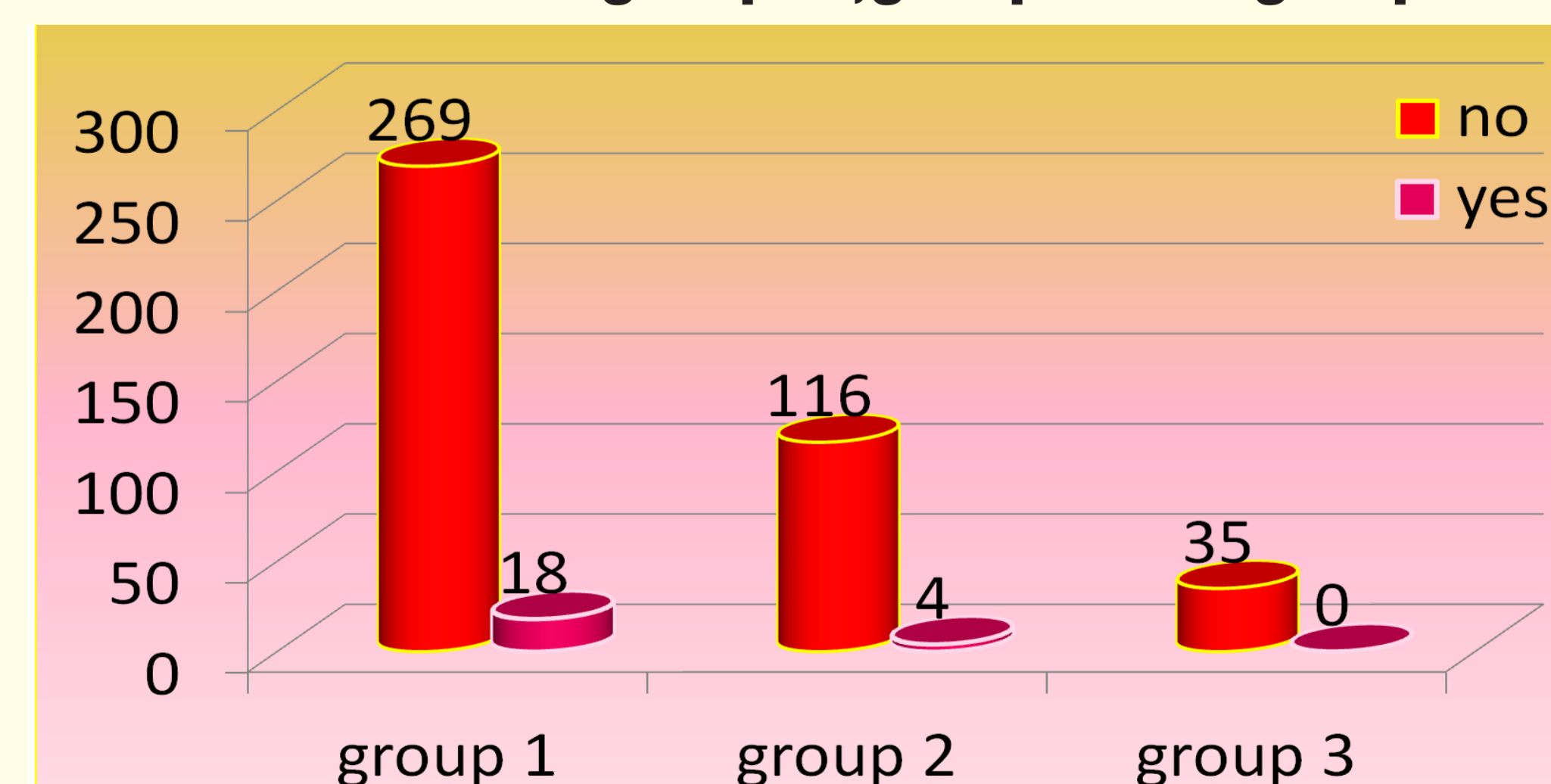
There was not much difference in the mean age of mothers in all 3 groups as seen in the table above. In all 3 groups the babies mean gestational age was between 31-33 weeks and mean birth weight ranged between 1861 to 1914 grammes.

Figure 1 : Comparison of Apgar Score at 1 minute and 5 minutes among the groups.



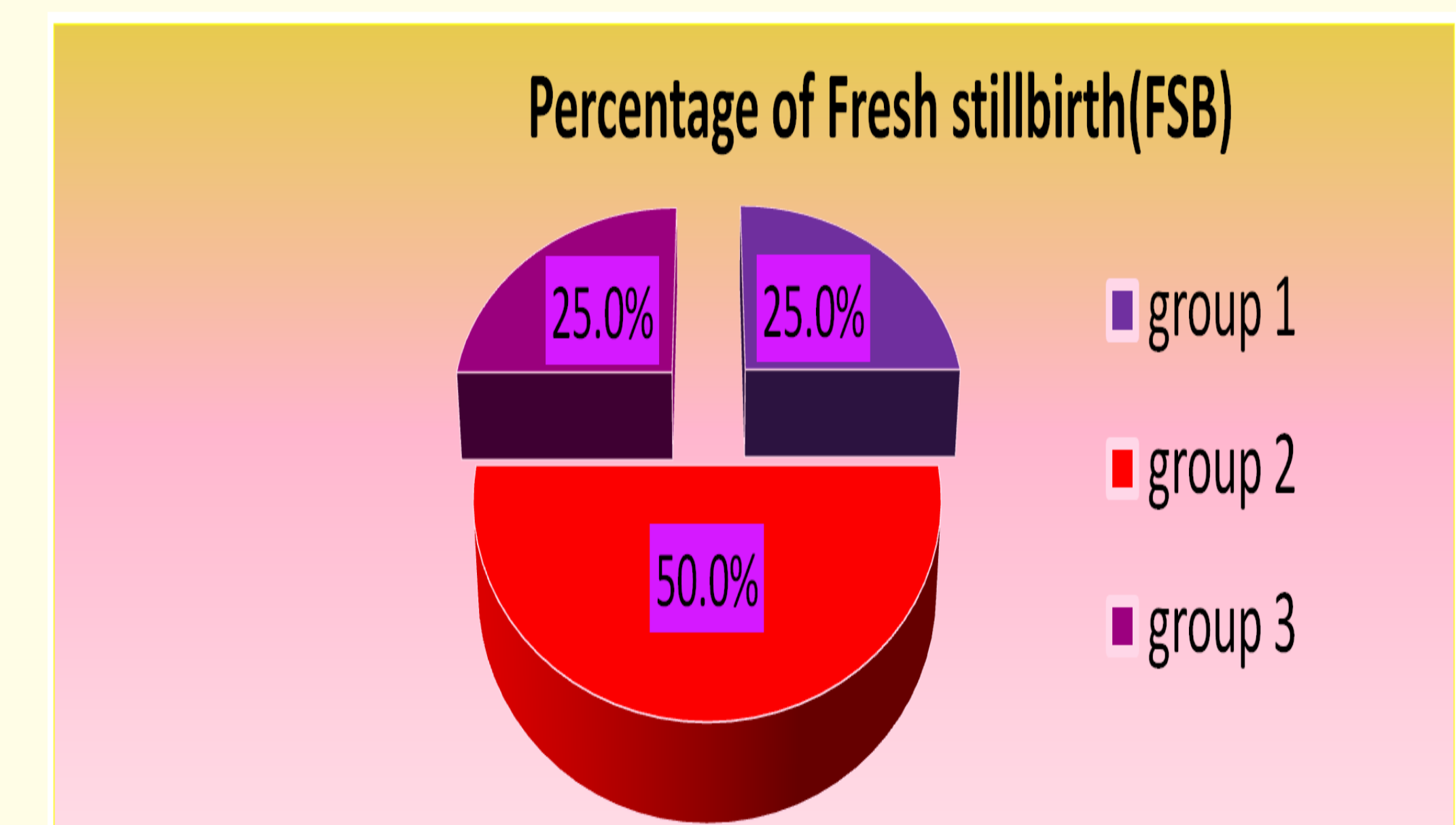
Apgar score	Group 1 n (%)	Group 2 n (%)	Group 3 n (%)	p value
Apgar score at 1 min				0.562c
< 7	63(22.3)	28(23.9)	5(62.5)	
≥ 7	220(77.7)	89(76.1)	3(37.5)	
Apgar score at 5 min				0.208c
< 7	29(10.3)	18 (15.5)	2(40.0)	
≥ 7	253(89.7)	98(84.5)	30(60.0)	

Figure 3: Number of newborn babies in relation to NICU admission in group 1 ,group 2 and group 3



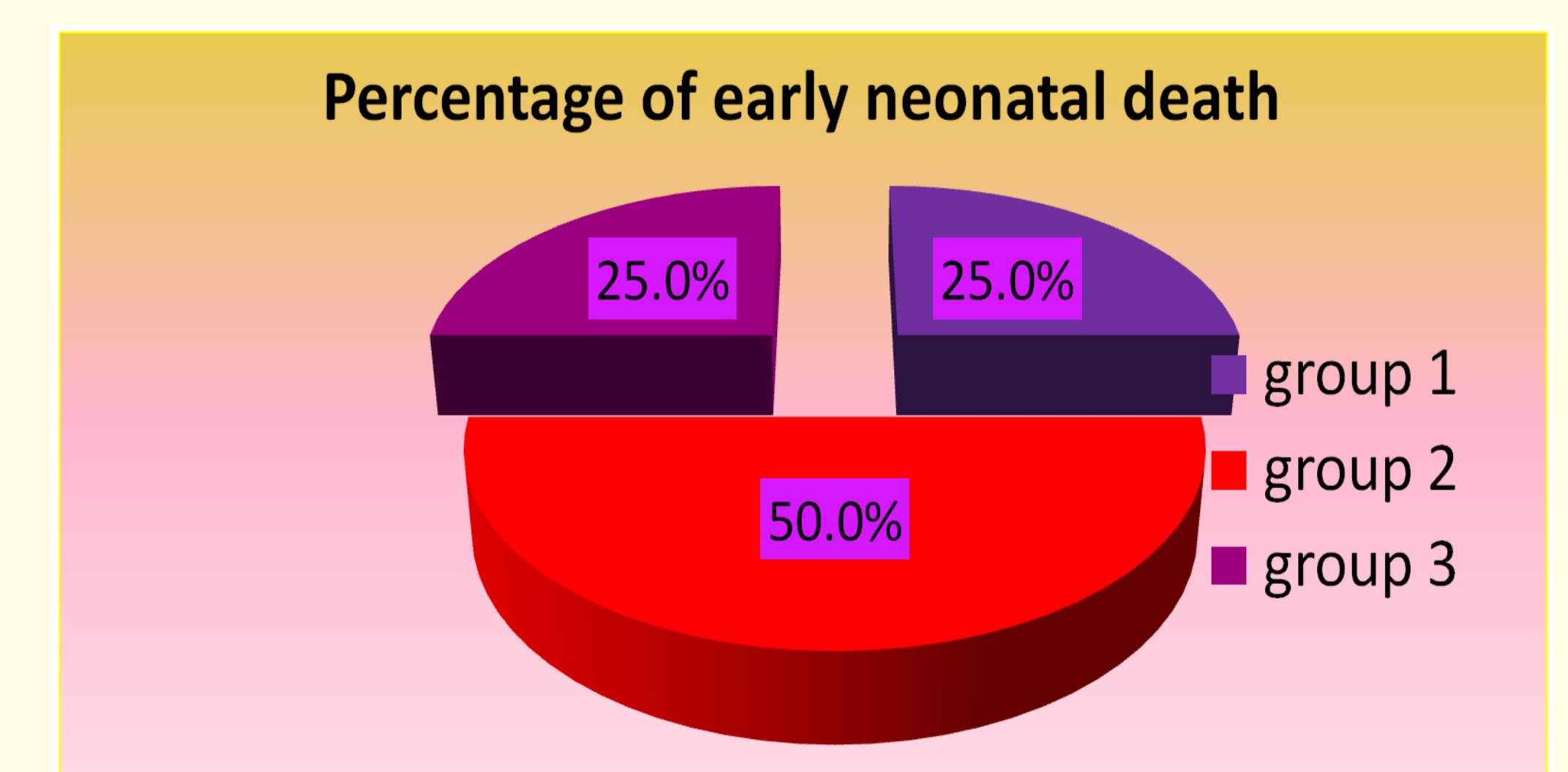
As shown in figure 3, only 6.7% of newborns in group 1 had been admitted to NICU. Around 3.4% of newborns in group 2 required NICU admissions but surprisingly those in group 3 did not require NICU admissions.

Table 2: Comparison of age, parity gestational age and birth weight



Surprisingly we see a higher FSB rate in women who had received a single dose of Dexamethasone as compared to those that had not received any.

Figure 4 : Percentage of early neonatal death



Early neonatal death is also higher in group 2 as compared to group 3.