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STUDY OF MATERNAL AND FETAL OUTCOME OF PREGNANCY WITH POSTDATE

Gynaecology

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KEYWORDS

INTRODUCTION

Postdate! Postdate! What is wrong in being postdate! Nothing in obstetrics creates more anxiety for the patient and her obstetrician than being "Overdue". As Wrigley said, there can be no more an exact time for "gestation" than an exact height or an exact weight for everyone. The reason why the subject generates so much heat and debate because of morbidity and mortality that is associated with prolong pregnancy[20]. "Any pregnancy which has passed beyond the expected date of delivery, is called a (prolonged) or postdated pregnancy".

AIMS AND OBJECTIVES

- Role of antepartum fetal assessment in management of postdate pregnancy.
- To study role of induction in management of postdate pregnancy.
- Maternal and fetal outcome in postdate pregnancy.

A study of 70 cases of postdates pregnancy. These patients were admitted in department of obstetrics and gynecology in teaching institute, Ahmedabad, with full term pregnancy with sure LMP during the period of June 2015 to November 2017, were studied for mode of delivery and maternal and fetal outcome in course of Labour

Inclusion Criteria:

- Singleton pregnancy
- Sure LMP with previous regular menstrual cycle
- Cephalic presentation
- No medical disorder
- Previous ceasarean section.

Exclusion Criteria:

- Uncertain LMP
- Multiple pregnancy
- Mal presentation
- Contraindication to vaginal delivery
- Congenital malformation
- Intrauterine death
- Antepartum hemorrhage
- Polyhydramnios
- Eclampsia
- Hypersensitivity to prostaglandin

Study subjects were further divided according to duration of gestation in (40.01 to 42 weeks) and beyond 42 weeks.

METHODS:

Patients were admitted in department of obstetrics and gynaecology with reliable dates with 40 weeks of gestational age calculated by Naegle's formula. Detailed history and examination of all patients done before including them into study as shown in Proforma. Further management of labour was carried out accordingly.

Table 1 amount of liquor

LIQUOR	LSCS	Normal Delivery
Adequate (more than 10)	21(55.3)	23(71.8)
AFI 5-10	11(29)	8(25)
AFI less than 5	6(15.7)	1(3.2)
TOTAL	38	32

Table - 2: Mode Of Delivery

Mode of Delivery	Study Group				Total
	Spontaneous		Induced		
	No.	%	No.	%	
Vaginal	19	57	13	36	32
LSCS	14	43	24	64	38
Total	33	100	37	100	70

Above table shows that LSCS rate in patients with spontaneous onset of labour was 43% while it was 64% in patients who were induced. And in vaginal delivery 57% patients were in spontaneous group and 36% were in induced group.

In this study group shows the rate of LSCS increases with induction of labour.(64%) in compare with spontaneous group(43%)

Table —3 Duration Of Labour

Duration of labour in hours	Spontaneous				Induced			
	primigravida		Multigravida		Primigravida		Multigravida	
	No.	%	No.	%	No.	%	No	%
Up to4	5	29.5	3	18.7	0	0	2	11.7
5 to 10	5	29.5	7	43.7	10	50	8	47.3
11 to 14	3	17.5	4	25	4	20	5	29.3
More than 15	4	23.5	2	12.6	6	30	2	11.7
Total	17		16		20		17	

Majority of patients (47.3%) had duration of labour between 5 – 10 hours.

Caughey (2007); reported duration of labour increases with increase in gestational age[8].

Table 4: Colour Of Liquor

	40 – 42 weeks		More than 42 weeks	
	Spontaneous	Induced	Spontaneous	Induced
Meconium stained liquor.	2	14	3	0
Liquor clear.	25	23	2	1
Total	64		6	

Table —5: Birth Weight

Fetal Birth Weight	No. of Cases	%
Less then 2.5	02	2.85
2.5-3.0	30	42.85
3.1-3.5	31	44.28
3.6-4.0	07	10

Table —6: Apgar at 1 min.

Apgar Score	40.01 —42 Wks		> 42 wks	
	No.	%	No.	%
0-3	1	1.5	0	0
4-6	24	37.5	3	50
7-10	39	61	3	50
Total	64	100	6	100

The above table shows Apgar scores of Newborn at '1 min.

On analysis of above table there are 50% of babies in >42 WK

gestational group had Apgar score between 4 – 6.

This indicated postdate pregnancy leads to less Apgar score and active intervention should be advised beyond 40 weeks.

Table — 7 : Apgar at 5 min

Apgar Score	40—42 WK		> 42 WK	
	No.	%	No.	%
0-3	0	0	0	0
4-6	2	3.1	0	0
7-10	62	96.9	6	100
Total	64	100	6	100

On analysis of above table there are 100% of babies in >42 WKS gestational group had Apgar score between 7-10.

Table — 8: Maternal Outcome

Maternal Outcome		Spontaneous		Induced	
Type of Delivery		No.	%	No.	%
	Vaginal	19	57	13	36
	LSCS	14	43	24	64
Complication	Vaginal Laceration	3	15.8	5	38.4
	Perineal Tear	2	10.4	3	23
	Cervical Tear	7	36.9	1	7.6
	No complication	7	36.9	4	31
	Episiotomy	17	53.1	15	46.9
	Total	19	100	13	100

This table shows maternal morbidity. There was no serious maternal complication.

In spontaneous group, 3 patients had vaginal laceration and 2 patients had perinea! tear. In induced group, 1 patients had cervical tear.

So, from this study, there is no significant difference in maternal morbidity in spontaneous and induced group.

53.1 % patients had episiotomy in spontaneous group and 46.9%patients had episiotomy in induced group 69% patients had genital track trauma like vaginal lacerations, perineal tear, cervical tear.

Table — 9: Neonatal Morbidity

Neonatal Morbidity	Spontaneous		Induced	
	No.	%	No.	%
Meconium Aspiration Syndrome	2	6	6	16.2
NICU(sspt) Admission	16	48.5	17	46
Septicemia	0	0	1	2.8
No morbidity	15	45.5	13	35
Total	33	100	37	100

Table 10.

Meconium Stained Liquor	Spontaneous	Induced
Present	4(12.2)	9(24.4)
Absent	29(87.8)	28(75.6)
Total	33	37

Table 11, In this study

Liquor	LSCS	Normal Delivery
Adequate (more than 10)	21(55.3)	23(71.8)
AFI 5-10	11(29)	8(25)
AFI less than 5	6(15.7)	1(3.2)
TOTAL	38	32

Table No 12.

	Spontaneous		Induced	
	LSCS	Normal Delivery	LSCS	Normal Delivery
MSL present	3(75%)	1(25%)	9(100%)	0
MSL absent	11(38%)	18(62%)	15(53.5)	13(46.5)
Total	14	19	24	13

In This Study Group

In the group of all spontaneous allowed patient meconium stained liquor was present in 4 cases out of that LSCS rate (75%) significantly higher than normal delivery (25%) .

SUMMARY

1. Majority of patients were between 21 to 30. Because Most of patients came from lower socio-economical class and lower education in our institute and they conceived at early age.
2. Majority of patients (53%) were in primigravida group, (47%) were in multigravida.

In primigravida group 20 (55%) out of 37 had to be induced and 17 (45%) out of 37 were in spontaneous group.

In multigravida group 16 were in spontaneous group and 17 were in induced group.

3. In Our present study 90% of patients (out of 70) were between 40-42 weeks of gestational age while 10% were in more than 42 weeks group. According to earliest ultrasonography was not available more than 40 weeks in this patient so late ovulation might be reason for post-date.
4 Chances of meconium stained liquor increased in induced group in compare to spontaneous group.
5. In Our study group severe oligohydramnios (AFI less than 5) significant increase in LSCS rate 15.7% observed compared to Normal delivery(3.2%) out of 32 patients so more chances of LSCS compared to normal delivery in a severe oligohydramnios.
6. Out of 70 cases labour started spontaneously in 47% of cases and 53% patient were induced. 53% patients needed induction in this study group to prevent complications of post -date and post term pregnancy. In this study, patient who had adequate liquor and reactive non-stress test were allow to go to spontaneous labour with twice weekly visits and daily fetal movement count explanations to patients.
7 study group shows the rate of LSCS increases with induction of labour.(64%) in compare with spontaneous group(43%)
8. The most common indication OF LSCS in induced group was NPOL (37%) followed by meconium stained liquor in 29.6% cases.
9. Majority of patients (47.3%) had duration of labour between 5 – 10 hours.
10. In present series incidence of shoulder dystocia is 1.42% and birth weight of baby in this case was 3.3kg.
11. Majority of babies (44%) belonged to 3.1 to 3.5 kg birth weight. None had birth weight more than 4 kg. This might be due to some placental dysfunction after term and due to lower socio-economic class.
12. In spontaneous group, 3 patients had vaginal laceration and 2 patients had perinea! tear. In induced group, 1 patients had cervical tear. So, from this study, there is no significant difference in maternal morbidity in spontaneous and induced group. 53.1 % patients had episiotomy in spontaneous group and 46.9%patients had episiotomy in induced group 69% patients had genital track trauma like vaginal lacerations, perineal tear, cervical tear.
13. In Majority of patients meconium stained liquor was present in 4 cases out of that LSCS rate (75%) significantly higher than normal delivery (25%) And In induced group out of 37 patients meconium stained liquor was present in 9 case and absent in 28 cases .and LSCS was performed in All 9 case in which meconium stained liquor was present in all case. (100%)
14. Majority of patients (47.3%) had duration of labour between 5 – 10 hours.
15. In Majority of babies in >42 WK gestational group had Apgar score between 4 – 6. This indicated postdate pregnancy leads to less Apgar score and active intervention should be advised beyond 40 weeks. APGAR at 1
16. In Majority of babies in >42 WKS gestational group had Apgar score between 7-10. APGAR at 5 minutes
17. parinatal mortality was 1.43% in our study because of proper monitoring.

CONCLUSION

Postdated pregnancy or pregnancy beyond 40 weeks is associated with adverse perinatal and maternal outcome is known since long time, yet the standard policy for active intervention as conservative management is under evaluation.

The present study of 70 cases concluded that prolong pregnancy beyond 40 weeks does not affect maternal outcome significantly in

terms of duration of labour, LSCS rate operative vaginal delivery rate, infection rate etc. But it is significantly associated with poor neonatal outcome in terms of low Apgar, septicemia, birth asphyxia.

It has been observed in this study that induction increase operative intervention rate(LSCS) as has been figured by obstetricians.

As can be seen from present study, perinatal mortality can be drastically reduced in postdated pregnancy by taking the patient for active intervention for labour and proper monitoring during labour. In our present study, PNM is 1.42% Moreover, sure LMP(corrected EDD) and 1st usg wise maturity and placental grading is a good predictor of neonatal outcome.

Therefore, active intervention for termination of pregnancy should be considered in pregnancy continuing beyond 41 weeks in the interest of the healthy fetus.

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