

Observational Study On Mode Of Delivery In Pregnancy Beyond Expected Date Of Delivery At Rims,Ranchi

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Abstract :

Aim :- Observational study on mode of delivery in pregnancy beyond expected date of delivery at RIMS, Ranchi.

Methods :- All antenatal cases beyond 40 weeks of gestation were selected. Around 200 antenatal cases beyond 40 weeks were selected. A patient was considered postdate correlating her LMP [Naegele's rule], clinical examination & obstetric USG findings, and accordingly mode of delivery was studied depending on Bishop's score and any associated complications.

Results :- With increasing gestational age, rate of surgical intervention increases because of meconium staining of amniotic fluid, non progress of labour, intrapartum fetal hypoxia & oligohydramnios.

Conclusion :- With regular antenatal check-up, incidence of postdated pregnancy can be decreased and it is important because of definite risk to fetus. Pregnancy beyond expected date of delivery is a universally accepted indication for antenatal fetal monitoring, so it requires early detection, effective & proper planning & management.

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I. Introduction :-

Pregnancy beyond 40 weeks of gestation has been associated with an increased risk of fetal, intrapartum and early neonatal morbidity and mortality with increased incidence of non-reassuring fetal heart rate, oligohydramnios due to placental insufficiency, fetal distress in labour, meconium staining of liquor and meconium aspiration syndrome, macrosomia, shoulder dystocia, increased incidence of birth trauma due to big size baby and non moulding of head due to hardening of skull bones.

Prolonged/Post term pregnancy as endorsed by the American college of obstetricians & gynaecologists (2004) and WHO is 42 completed [294 days] or more from the first day of the last menstrual period or beyond estimated date of delivery plus 14 days.^{1,2}

The incidence of post term pregnancies ranges from 4-19%. The average is about 10%.^{3,4,5}

Despite intensive research, management is still controversial and varies among various hospital units. So comprehensive study of such cases will provide baseline information on outcomes. This study will also help us to revise existing management protocol at the department.

It is well established that risks are increased in pregnancy beyond expected date of delivery, which has received less attention.¹³

II. Materials and Methods :-

This observational study carried out in the department of obs&gynae, RIMS, Ranchi during period from July 2012 to December 2014.

All antenatal cases beyond 40 weeks of gestation were selected. Around 200 antenatal cases were selected.

We had taken the proper history and performed all necessary clinical examination. All basic antenatal check-ups were done.

EDD was established from known LMP with regular menstrual cycles or with review from antenatal papers or using dating USG between 7 & 11 weeks of gestation or using 2 or more USG done 3-4 weeks apart between 12 & 28 weeks or from date of quickening or adding 36 weeks since the patient had a positive serum or urine pregnancy test.

At RIMS induction of post term pregnancies is done at 41 weeks as per the national guidelines.

III. Results :-

A patient was considered postdate correlating her LMP [Naegele's rule], clinical examination and obstetric ultrasound findings. Then thorough general physical examination, CVS, Respiratory system, per abdomen & per vaginum examination [Bishop score] was done. Bishop's score ≥ 6 is regarded as a favourable

cervix & score ≤ 5 regarded as unfavourable. At the time of admission, CTG was done in all cases. Mode of delivery was also decided on Bishop's score, FHR pattern & colour of liquor. The data analysis was done using Excel & SPSS software.

Table 1, 2, 3 & 4 gives the detail about age incidence, mode of delivery & comparison of mode of delivery according to gestational age & common indications of caesarian section in this study.

Table 1 : Distribution of cases according to age of patient

AGE	NUMBER	PERCENTAGE (%)
< 20	30	15
20-25	121	60.5
26-30	39	19.5
>30	10	5.0
TOTAL	200	100

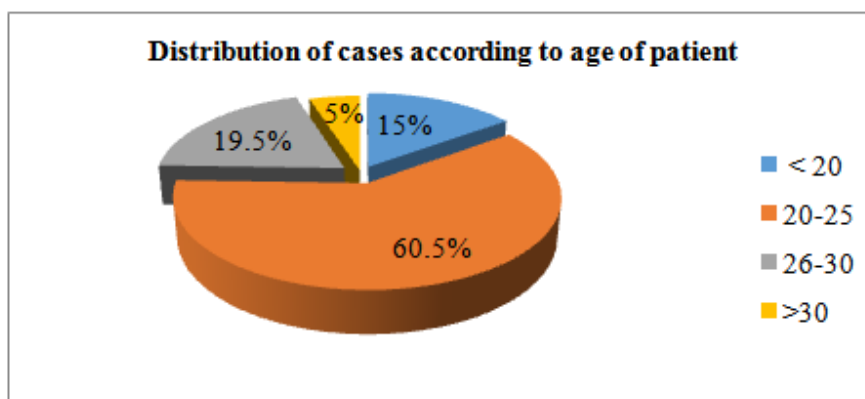


Table 2 :- Distribution of cases according to mode of delivery [MOD]

MOD	FREQUENCY	PERCENTAGE (%)
VD	104	52.0
LSCS	79	39.5
ID	17	8.5
TOTAL	200	100

MOD: Mode of delivery, VD: Vaginal delivery, LSCS: Lower segment caesarean section, ID: Instrumental delivery

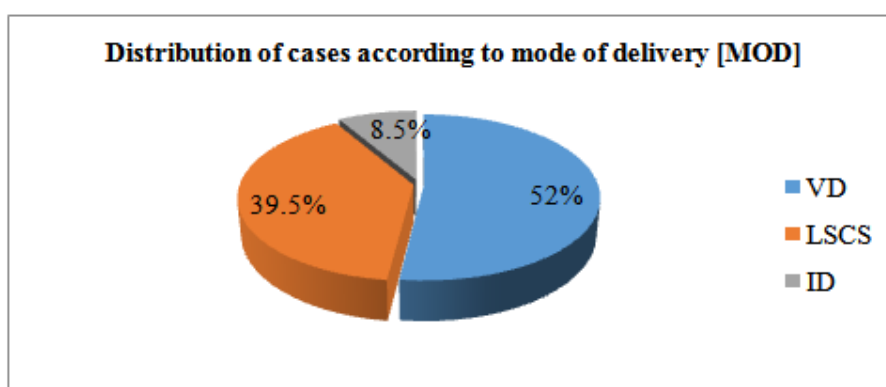


Table 3 :- Comparison of MOD with gestational age

GESTATIONAL AGE(WEEKS)	VAGINAL DELIVERY	%	LSCS	%	ID	%
>40	64	61.54	15	18.98	07	41.20
>41	21	20.20	25	31.64	05	29.40
>42	19	18.26	39	49.36	05	29.40
TOTAL	104	100	79	100	17	100

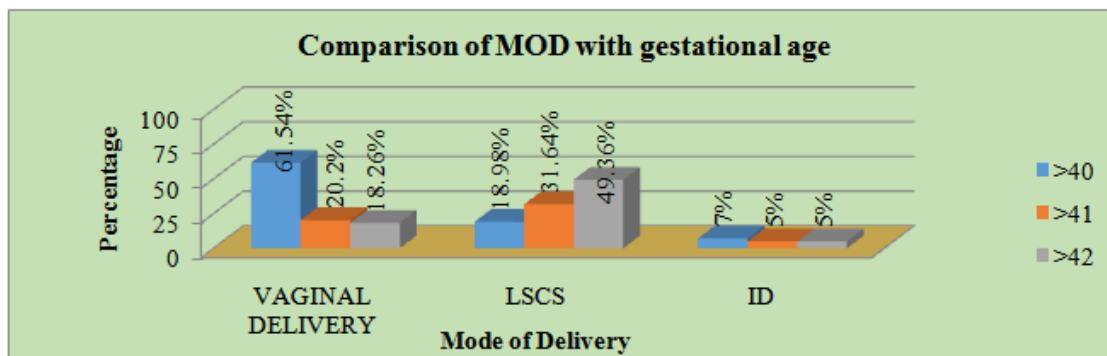
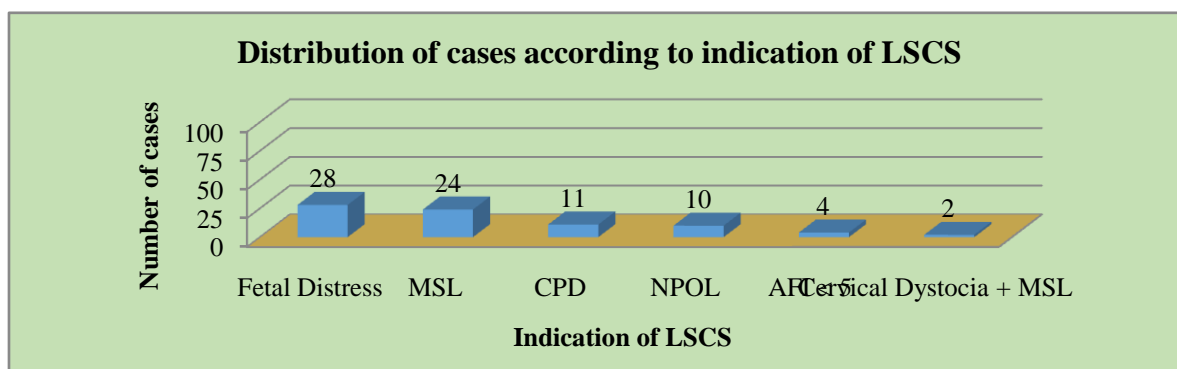


Table 4 :- Distribution of cases according to indication of LSCS.

INDICATION OF LSCS	NUMBER OF CASES
Fetal Distress	28
MSL	24
CPD	11
NPOL	10
AFI < 5	04
Cervical Dystocia + MSL	02
TOTAL	79



MSL: Meconium stained liquor, CPD: Cephalopelvic disproportion

NPOL: Non progress of labour, AFI: Amniotic fluid index

60.5% of cases were between 20-25 years of age. Overall, rate of vaginal delivery (52 %) is more than LSCS (39.5%). The rate of surgical intervention increased in pregnancy beyond EDD because of increased frequency of prolonged labour & fetal distress. In this study, LSCS and instrumental delivery rate is high as our hospital is tertiary care centre and many patient came from periphery handled by untrained dais or with fetal distress. Rate of vaginal deliveries decreases as gestational age increases & rate of LSCS increases with increasing gestational age. Rate of vaginal delivery at gestational age >42 weeks was 18.26%, 49.36% & 29.4% respectively.

IV. Discussion :-

Postdated pregnancy is an obstetric situation which demands special attention in developing countries where neglected pregnancy is common. It is a high risk pregnancy because perinatal mortality and morbidity exceed that of term pregnancy.

Accurate assessment of gestational age and diagnosis of post dated pregnancy as well as recognition & management of risk factors may reduce the risk of adverse outcomes.

In this study incidence of postdated pregnancy was 6% similar to Beischer et al⁶ & Usher et al. Majority of post dated pregnancy were seen in age group of 20-30 years in this study. The mean age was 23.56 ± 2.75.

Out of 200 cases, 104 cases had full term vaginal delivery whereas 79 (39.5%) cases had LSCS & 17 (8.5%) cases were of instrumental delivery. Out of 17 instrumental delivery, forceps was applied in 10 cases & ventouse in 07 cases. In Singhal et al, rate of LSCS was 16.7% & in the study by Mahapatro, it was found to be 28.9%. In Mahapatro's, Singhal et al's & Davinder et al's study, the rate of instrumental delivery was 5.72%, 8.6% & 10.35% respectively.¹⁴ The rate of surgical intervention is increased in post term pregnancies because of meconium staining of amniotic fluid, non progress of labour, intrapartum fetal hypoxia &

oligohydramnios. Overall rate of vaginal delivery decreased very much with increasing gestational age. Rate of C.S & vaginal delivery were 18.98% vs 81% & 61.54% vs 38.46% in 40 weeks & 41 weeks group respectively. The most common indication for LSCS in this study was fetal distress & 2ndMSL followed by CPD similar to Mahapatro's study,⁷ Morris's et al & Runa Heimstadet al.

With regular antenatal check-up, incidence of postdated pregnancy can be decreased and it is important because of definite risk to fetus. Confirmation of diagnosis is very important as many patient don't have regular menstrual history and LMP. Diagnosis is confirmed by 1st trimester USG which is most important non-invasive method & readily available. When there has been both a 1st & 2nd trimester USG, gestational age should be determined by earliest USG. 1st step in the management of women with pregnancy beyond expected date of delivery is to determine their accurate gestational age.

Pregnancy beyond expected date of delivery is a universally accepted indication for antenatal fetal monitoring, so it requires early detection, effective & proper planning management. The mere fact that pregnancy in post term does not necessitate a hasty line of management towards operative delivery.

In our part of country complication also increases as most of patients come from periphery. Most of them have poor access to health facility, so they got handled by untrained birth attendants that causes delayed referral also.

V. Conclusion

Pregnancy beyond expected date of delivery is high risk pregnancy, so accurate & early diagnosis, timely referral and induction as per protocol, proper intrapartum monitoring preferably by CTG & monitoring of labour by partograph and timely detection of fetal distress, failed induction & non progress of labour & manage properly.

Limitations :-

In this study most of the cases were referred from periphery and were unbooked. There were complications after referral & lead to caesarean delivery & instrumental delivery, so datas are not accurate as per protocol.

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