



MATERNAL AND PERINATAL OUTCOME IN PROLONGED PREGNANCY

Obstetrics & Gynaecology

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ABSTRACT

Introduction: Prolonged pregnancy is the preferred word for extended pregnancy beyond EDD. Early induction may increase rate of operative interference i.e. LSCS and instrumental deliveries and waiting for more days may be hazardous for the baby. So, this study aims to study the factors associated with prolonged pregnancy and its effect on materno-fetal outcome. **Method:** A cross sectional study was conducted over a period of 3 years among 185 women with prolonged pregnancy coming to Obstetrics and Gynecology department, MGM Medical College and Hospital, Aurangabad. **Results And Conclusion:** In our study, 95.68% reported between 40-41 weeks, 67.57% women had received progesterone support in ANC period. 42.47% women had history of previous prolonged pregnancy, 58.39% underwent induction of labour, while 41.61% underwent spontaneous labour. Most common indication of LSCS was fetal distress in 43.18% patients. Amongst 23 babies who required NICU, birth asphyxia was most common indication in 56.52%. In our study, 63.78% women were anxious about need of LSCS and its postoperative complications. Surprisingly 46.49% women were not aware about the effect of prolonged pregnancy on baby.

KEYWORDS

Prolonged pregnancy, Induction of labour, LSCS

INTRODUCTION

Prolonged pregnancy is the preferred word for extended pregnancy beyond EDD. Prolonged pregnancy can be both post-dated and post-term. Post-dated pregnancy is defined as a pregnancy beyond 40 weeks of gestation (280 days) or beyond EDD. Pregnancy above 42 weeks of gestation (294 days) is defined as post-term pregnancy. The overall incidence of prolonged pregnancy is 10%.^[1]

Prolonged pregnancy is associated with increased risk of maternal complications like cephalopelvic disproportion, shoulder dystocia, postpartum hemorrhage, perineal injuries and increased operative interference.^[2] Fetal complications include macrosomia, fetal hypoxia, neonatal complications like meconium aspiration syndrome and hypoglycemia.^[3]

Management of prolonged pregnancy includes proper antenatal fetal surveillance and timely delivery or induction of labour if needed.^[4] It is found that once the EDD is crossed, the anxiety of the patient, relatives and obstetrician increases. Early induction may increase rate of operative interference i.e. LSCS and instrumental deliveries and waiting for more days may be hazardous for the baby. So, this decision to wait or to terminate is very critical and should be done judiciously.

Aim And Objectives

Aim: To study the maternal and perinatal outcome in prolonged pregnancy.

Objectives:

1. To study the incidence of prolonged pregnancy.
2. To evaluate the risk factors associated with prolonged pregnancy.
3. To study the materno-fetal outcome.

MATERIAL AND METHODS

It is a cross-sectional study conducted over a period of 3 years, between the year 2020 to 2022, among 185 women with prolonged pregnancy coming to labour room/ OPD/ ward of MGM Medical College and Hospital, Aurangabad.

Inclusion Criteria:

1. All pregnant patients beyond 40 weeks of gestation as per LMP or dating scan.
2. Singleton Pregnancy

Exclusion Criteria:

1. Women with irregular menstrual cycles or inaccurate LMP or dating scan not available.

Study Procedure:

All necessary permissions from the ethical committee and hospital administration were taken. After taking informed consent from the patients, a detailed history and examination was carried out with close observation till mother and baby remained in hospital. All data was documented using proforma and compiled in MS Excel. The data was further analyzed using SPSS software.

RESULTS

Table No. 1: Distribution according to obstetric data

Characteristic	n = 185 (100%)
Gestational Age	
• 40.1 to 41 weeks	177 (95.68)
• 41.1 to 42 weeks	6 (3.24)
• > 42 weeks	2 (1.08)
Parity	
• Primigravida	112 (60.54)
• Multigravida	71 (38.38)
• Grand-multigravida	2 (1.08)
Progesterone Support	
• Yes	125 (67.57)
• No	60 (32.43)

In our study, 95.68% patients were aware about the prolonged pregnancy and reported between 40 - 41 weeks due to anxiety about fetal well-being. Still, 3.24% patients came after 41 weeks and 1.08% patients came after 42 weeks.

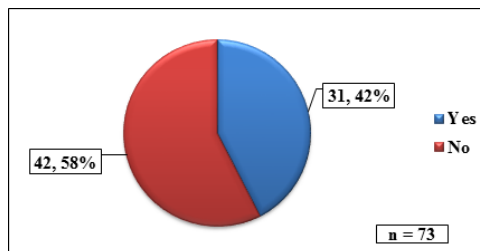


Figure No. 1: Distribution according to history of previous prolonged pregnancy

In our study, 60.54% women were primigravida suggesting possibility of high risk of prolonged pregnancy in primigravida.

In our study, 67.57% women had received progesterone support in ANC period which could be one of the reasons for prolonged pregnancy.

In our study, out of 73 multigravidas, 42.47% women had history of previous prolonged pregnancy suggestive that prolonged pregnancy is important recurrent factor.

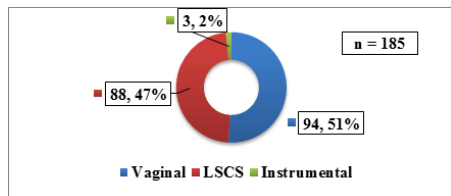


Figure No. 2: Distribution According To Mode Of Delivery

In our study 50.81% delivered vaginally in spite of postdatism and 47.57% underwent LSCS and 1.62% underwent instrumental delivery indicating that our anxiety could be an important factor for LSCS.

The various indications of LSCS found in our study were: fetal distress, failure of induction, CPD/contracted pelvis, non-progress of labour. The most common among them being fetal distress (43.18%) followed by failure of induction (17.05%).

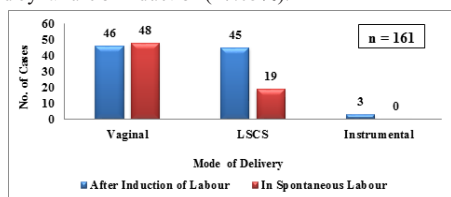


Figure No. 3: Distribution according to mode of delivery in patients who were kept for vaginal trial

Out of the total cases, 24 patients underwent LSCS at admission. Amongst the remaining 161 cases, 67 patients went into spontaneous labour whereas in 94 patients labour was induced. Amongst induction group (n = 94), 48.94% delivered vaginally and 47.87% underwent LSCS; whereas in spontaneous group (n = 67), 71.64% delivered vaginally and 28.36% underwent LSCS suggestive that high rates of LSCS after induction.

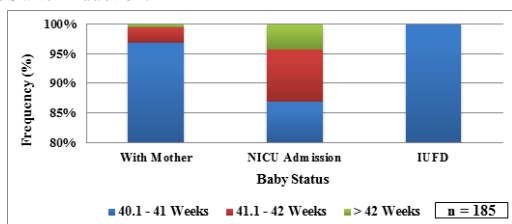


Figure No. 4: Distribution according to gestational age and neonatal outcome

In our study, 86.49 % babies were with mother while only 12.43% required NICU admission in spite of the prolonged pregnancy. So, our anxiety may be leading us to often terminate the pregnancy early.

Amongst 23 babies who required NICU admission, most common indication found was birth asphyxia (56.52%) followed by meconium aspiration syndrome (30.43%).

Table No. 2: Anxiety Questionnaire

Anxiety Questionnaire	Yes	No
Repeated ANC follow up	85 (45.95%)	100 (54.05%)
Increasing cost due to investigations	79 (42.70%)	106 (57.30%)
Fed up with the pregnancy and wants to terminate	68 (36.76%)	117 (63.24%)
About induction of labour	105 (56.75%)	80 (43.24%)
Instrumental delivery	100 (54.05%)	85 (45.95%)
LSCS and complications	118 (63.78%)	67 (36.22%)

Baby will pass meconium/NICU admission/IUD	99 (53.51%)	86 (46.49%)
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(*note: percentages are calculated row wise)

In our study, 63.78% women were worried about the need of LSCS and postoperative complications and 56.75% were anxious about induction of labour if pregnancy continued hence not visited unless pain started. 54.05% women were anxious about need of instrumental delivery due to big size of the baby. Surprisingly, 46.49% women were not aware about the effect of prolonged pregnancy on baby.

DISCUSSION

This study was a cross sectional study carried out at MGM Hospital Aurangabad among 185 patients with singleton prolonged pregnancy. Incidence of prolonged pregnancy in our study was 5.89%.

Obstetric Data

In our study 95.68 % cases were between 40.1 to 41 weeks, 3.24% cases were between 41.1 to 42 weeks while 1.08% cases were above 42 weeks. In a study done by **Vishakha et al**^[5], 69.8% cases were between 40 to 40.6 weeks, 27.1% cases were between 41.1 to 41.6 weeks. **Dobariya PV et al**^[6] reported that 41.67% cases were between 40 to 41 weeks, 57.14% cases were between 41 to 42 weeks.

In our study, 60.54% women were primigravida and 38.38% were multigravida. In a study done by **N Roos et al**^[7], 51.3% were primigravida. **Dr Sudesh Agrawal et al**^[8], in their study reported that 63.3% women were primigravida. All findings were similar to our study suggesting that there could be high risk of prolonged pregnancy in primigravida and need to focus on this as an etiology factor.

In our study, 67.57% patients received progesterone support which could be one of the reasons for prolonged pregnancy. No similar study was found regarding same hence we need more studies to understand if this is important factor for prolonged pregnancy.

History Of Previous Prolonged Pregnancy

In our study, 42.47% patients had history of previous prolonged pregnancy. **Kortekaas et al**^[9] reported that there is high risk of prolonged pregnancy in women having previous history of prolonged pregnancy with incidence of 15%. Similar study done by **Vishakha et al**^[5] reported that 71.4% had history of previous prolonged pregnancy. This is important as recurrence of prolonged pregnancy is known risk factor.

Mode Of Delivery

In our study, 58.39% patients underwent induction of labour. While in a study done by **Chaudhari SN et al**^[1] 38% patients underwent induction of labour.

Out of 185 patients, 50.81% delivered vaginally and 47.57% underwent LSCS and 1.62% required instrumental delivery. **Prajapati S et al**^[10], in their study reported that 75.4% delivered vaginally, 22.6% underwent LSCS and 2% required instrumental delivery. **Ritika et al**^[11], in their study found that 64% delivered vaginally, 34% underwent LSCS and 2% required instrumental delivery. Rate of LSCS was more in our institute as it is tertiary care center.

In our study amongst induction of labour group 48.94% delivered vaginally and 47.87% underwent LSCS while 3.19% required instrumental delivery. In spontaneous labour group 71.64% delivered vaginally while only 28.3% underwent LSCS. Which indicates induction of labour carries increased risk of LSCS. In a study done by **Haleema Shehnaz Bhatti et al**^[12], after induction of labour, 63.3% delivered vaginally while 36.7% underwent LSCS.

Anand et al^[13], in their study reported that 71.76% delivered vaginally, 25.8% underwent LSCS amongst spontaneous group, while 65.8% delivered vaginally and 30.58% underwent LSCS amongst induction group which is similar to present study.

According to present study there is high risk for LSCS in induced group compared to spontaneous group.

Indication of LSCS

In our study, most common indication for LSCS was fetal distress (43.18%) followed by failure of induction (17.05%).

In a study done by **Chaudhari SN et al**^[1] fetal distress was most

common indication for LSCS in 28%. **Nikita et al**^[12], in their study reported that most common indication for LSCS was failed induction of labour in 33.33%.

In our study amongst 38 patients who underwent LSCS for fetal distress, in 60.53% fetal distress was observed after induction of labour. **Nikita Patel et al**^[13], in their study reported that 40% patients underwent LSCS for fetal distress amongst induction group which is indicating hypoxia due to induction of labour.

Neonatal Outcome

In our study, 12.43% babies required NICU admission and 1.13% were IUFD whereas; 86.49% babies were with mother in spite of being postdated. In a study done by **Chaudhari SN et al**^[1], 34% babies required NICU admission. **Agrawal et al**^[8], in their study reported that 32% babies required NICU admission. Which was much higher compared to our study. **Bhriegu et al**^[11] reported that 17% required NICU admission similar to present study.

Anxiety Causes

In our study, 63.78% women were worried about the need of LSCS and postoperative complications and 56.75% were anxious about induction of labour if pregnancy continued hence not visited unless pain started. 46.49% women were not aware about the effect of prolonged pregnancy on baby.

According to study done by **Vishakha et al**^[5] it is found that insufficient counseling of women about EDD can lead to unnecessary anxiety. High anxiety level was also associated with presence of meconium in their study^[14].

CONCLUSION

Incidence of prolonged pregnancy can be decreased by proper antenatal visits and counseling.

If liquor is adequate along with normal fetal growth parameters, we can wait for spontaneous onset of labour with proper antenatal fetal monitoring between 40 to 41 weeks because early induction carries increased chances of failure of induction and LSCS. However, there is increased chance of maternal and perinatal morbidities after 41 weeks so; induction should be considered after 41 weeks. Decision to wait for spontaneous labour or to terminate by induction of labour is very crucial and should be taken very judiciously.

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Nil.

Conflicts Of Interest

There are no conflicts of interest.

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