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ADVANCED MATERNAL AGE AND IT'S IMAPCT ON MATERNAL AND PERINATAL OUTCOME.

Obstetrics & Gynaecology

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ABSTRACT

Background: Advanced maternal age (AMA) has been traditionally defined as age > 35 years at delivery, although some authors have used the age limits 40 and even 44 years. Regardless of what is the cutoff for advanced maternal age, pregnancies in women aged > 35 years are considered at risk of both obstetric complications and interventions. **Methods:** It is a type of journal article. Study design – retrospective study. The present study is a type of research article which was conducted in the Department of Obstetrics and Gynaecology, GGMC and JJ Hospital, Mumbai from October 2021 to January 2023, 100 postnatal mothers with age more than or equal to 35 were selected. **Results:** About 100 women participated in this study and most of them belonged between the age group of 35 - 39 years of age. Most of the women were multipara. Most of them had postpartum hemorrhage as the most common post delivery complication. **Conclusions:** Proper pre conceptional counselling, early ANC registration, regular ANC visits and adequate intrapartum fetal surveillance is essential to prevent adverse maternal and perinatal outcomes in advanced maternal age.

KEYWORDS

Advanced maternal age, perinatal outcome, postpartum hemorrhage

INTRODUCTION:

Obstetrics is a wonderful art of caring for two lives, the expectant mother and her baby in the womb. Advanced maternal age (AMA) has been traditionally defined as age > 35 years at delivery, [1,2] although some authors have used the age limits 40 [3,4] and even 44 years. [5]

Women older than 35 years have traditionally been termed as of "advanced maternal age", and considered to have higher incidence of obstetric complications and adverse pregnancy outcomes than younger pregnant women. The available scientific data suggests that risks begin to accelerate after the age of 35 years and increase more rapidly after the age of 40 years. Pregnancy at advanced maternal age has become more common in both developed and developing countries over the last decades. Globally, there is a rising trend among women towards delaying pregnancy and childbirth. But in a developing country like India, the scenario is different where poor socio-economic status, lack of contraceptive knowledge, religious issues, desire for male child, dowry system, second marriage, concept of large family predominate**.**

Women aged 35 years and older have an increased risk of miscarriage, chromosomal abnormalities, congenital anomalies, gestational diabetes, placenta previa, cesarean delivery and hypertensive disorders of pregnancy. [6] An increasing number of Indian women are delaying childbearing with 14.9% of all births occurring for women of advanced maternal age the same year.

METHODS:

Relevant data was collected from the patients as per the inclusion criteria presenting for a period of 1.5 years after taking written informed consent .

Information regarding patient profile, gravid score, risk factors, presenting symptoms and signs, physical examination, intra operative findings and post operative morbidity were analyzed. Data was summarized in tables and figures.

RESULTS:

Mean age in our study was 37 yrs +/- 2.26. Majority of the cases with advanced maternal age were either Gravid 2 or 3 with 32 cases each i.e 32 % of cases of the total sample size. The incidence of elderly primigravida, in our study was found to 13%, which was significant.

87% of the cases had spontaneously conceived, whereas in 13% of the remaining cases, were found to have conceived using ART in this study.

Antenatal Complications:

Table 1: Distribution of cases as per associated antenatal complications

Antenatal complications	Count
AFI	1
Anemia	8
Anomaly	1
Breech	3
Chronic HTN	1
Fibroid	1
GDM	3
PIH	7
Placenta previa	2
Heart disease	2
HIV	1
IUFD	2
Multiple pregnancy	1
Hypothyroidism	3
Previous 3 LSCS	2
Ruptured Ectopic pregnancy	4

Majority of the pregnancies were terminated via LSCS with the rate being 36% of total.

Among abnormal outcomes of pregnancy, the rate of Suction and evacuation which was done for early pregnancy losses was seen in 4% of the total cases

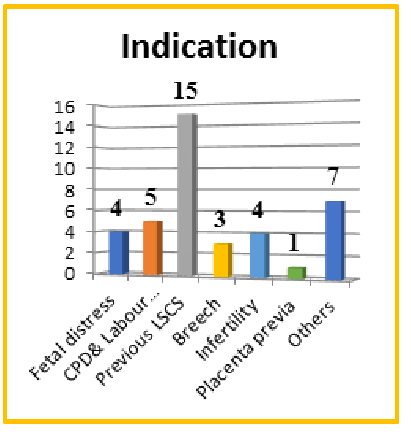

Figure 5: Distribution of cases as per Indications for LSCS

In majority of the cases, which underwent LSCS for termination of pregnancy, the indication was found to be patient with previous 1 or 2 or 3 LSCS.

Perinatal Outcome:

Out of all studied cases, 26.6% of the babies were admitted to NICU, reason being respiratory distress. In majority of the cases, APGAR was found to be more than or equal to 8 at 5 minutes after birth, indicating good neonatal status and less likely need for resuscitation.

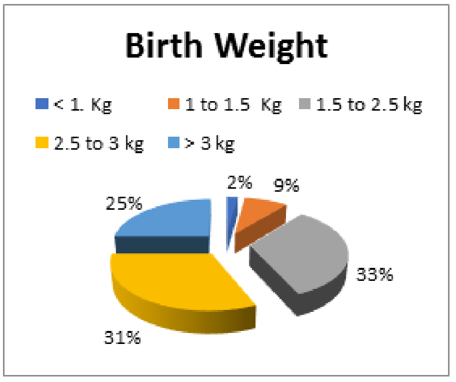

Figure 7: Distribution of cases as per neonatal weight at birth

The average birthweight was observed to be 2.58kg.

Neonatal & Maternal Mortality:
Out of the 90 live babies, in 4 cases the neonates underwent mortality and the cause of death in all of the cases being, respiratory failure with early onset sepsis. Out of the total cases studied in this study, there was only one maternal mortality.

DISCUSSION

Maximum number of cases were found to be in the age range of 35-39 years of age (85%), followed by 40-44 years of age i.e 13% and only 2% cases were found be more than or equal to 45 years of age.Similarly in a study conducted by Rajput et al it was found that majority of the females (89.93%) belonged to 35-39 years.[7]

In our study majority of the cases were found to be multigravida, 87% and the remaining were primigravida. The incidence of Grand multipara in our study was found to be 8%, similar study conducted by Priyadatt. D. Patel. This is due to the large family size trend in India which is still continued.[8] In our country, due to social and cultural reasons and lack of education and awareness, women continue to produce children right from the beginning till the end of their reproductive career.

In the study conducted by Rajput et al, the incidence of pregnancy induced hypertension was found to be 2.77%. Another study perfomed by Khalil et al shows the incidence as 2.3%, Rehman et al 3.96% and Benli et al, 2%.[7,9,10]

The higher incidence is because of microvascular endothelial dysfunction which is basic pathology of Preeclampsia, and is further accelerated with advanced maternal age predisposing these females to this condition.

In the present study, the incidence of Chronic Hypertension is 1.0% which is comparable to study done by Rajput N et al, in which it is 3.74%, Meenakshi et al, 2.2%. [7,11]

In our study, the incidence of GDM out of the total studied cases was found to be 3%, which is comparable to study done by Rajput et al, 2.08%, Rehman et al, 1.96%, Khalil et al, 2.4%. [7] A retrospective study by Jolly in UK between 1988 and 1997, concluded that women aged 35-40 years were at an increased risk of gestational diabetes.[12]

In our study it was observed that out of the total cases, 8% of patients presented to us with Anemia in pregnancy. This is more than that seen in the study by Rajput et al, 4.16% and Meenakshi et al, 2.9%, but comparable to that seen by Ramchandran et al [13] and Rehman et al 7.92%.

In a study by Prasad DN et al it was found that the incidence of Cesarean section was 56.6%, of which 35.90% were elective amongst which the most common indication was previous LSCS (63.63%) and 20.70% were emergency LSCS. Common indication for emergency LSCS was non progress of labour and other causes like fetal distress, PROM or combination of these. Studies conducted by Pallvi S Kalewad had incidence of LSCS as 68%.[14] Findings in our study were slightly lower, 36%, which are consistent with the study at K.G.M.U by Meenakshi where incidence of LSCS was 48.9%. Study at Jehangir Hospital by Pawde has incidence of LSCS as 35.2%, in > 35 years as compared to 25.5% in < 35 years cases, and most common indication of LSCS was previous LSCS, same as in our study.[15] The increasing rate of Cesarean section in aged females are claimed to be because of many reasons including medical diseases, pregnancy complications or fetal problems.

In a study conducted by Rajput N et al the incidence of Low birthweight baby was found to be 13.19%. Study done by Anuya A et al, 26% and Meenakshi et al, 23.9%, which are not comparable to the present study. In our study in the incidence of Low birth weight was seen in 40 cases, but only 2 cases were extremely low birth weight babies.

CONCLUSION

As the risk of perinatal and maternal complications such as postpartum hemorrhage is found to be higher in advanced maternal age, it is essential to monitor such patients from early gestation period. Early ANC registration and regular ANC visits are to be encouraged to prevent low birth weight and prematurity. Intrapartum surveillance of fetus as well as maternal vitals and adequate laboratory investigations to rule out anemia are essential. Post delivery care is equally important to prevent occurrence of AKI, ARDS, thromboembolism following Cesarean section. In this study most common complication found in women in advanced maternal age was found to be postpartum hemorrhage.

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