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AUDIT ON GESTATION AGE AT DELIVERY VS IMMEDIATE FOETAL OUTCOME

Weerasinghe A M[1]

[1]Consultant Obstetrician and Gynaecologist Base Hospital Teldeniya, Ministry of Health Sri Lanka

Corresponding Author**:** madushansinghe@gmail.com

ABSTRACT

The gestation age at delivery plays a crucial role in determining the immediate fetal outcome. Gestation age refers to the duration of pregnancy from the first day of the last menstrual period to the time of delivery. Preterm births, pose a higher risk to the immediate fetal outcome. Premature infants may face challenges such as underdeveloped organs, respiratory distress syndrome, and difficulty regulating body temperature. Additionally, the risk of complications such as infections and feeding difficulties is heightened in preterm births. Conversely, full-term deliveries, are generally associated with better immediate fetal outcomes. Babies born at full term are more likely to have fully developed organs and systems, reducing the likelihood of respiratory and other complications. They typically have a better chance of thriving in the immediate postnatal period.

The gestation age at delivery is a critical consideration for healthcare professionals in managing neonatal care. Monitoring the fetal development throughout pregnancy, addressing risk factors, and ensuring appropriate medical interventions when necessary can contribute to optimizing the immediate fetal outcome at the time of delivery. Understanding the relationship between gestation age and immediate fetal outcomes aids in providing tailored and effective healthcare for both mother and baby.

There were 100 deliveries in rural base hospital in central province Sri Lanka were evaluated in this study. Investigator administered data extraction sheet was used for data collection. Relevant descriptive statistics were applied. Mean age of the study participants was 30.14

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Yrs(SD=5.39 yrs) and 34 % was primi gravida mothers(n=34). Majority were normal vaginal deliveries(n=64:64.0%). Among Normal vaginal deliveries, majority was delivered less than two hours of intrapartum period(n=38:59.3%). Majority of babies had birth weight between 2.5 kg to 3.5kg (mean = 2.78kg: SD= 0.39kg). 26% of babies were able to discharge from the hospital within one day of post-natal period. 28.6% of babies had to stay more than 5 days of post-natal stay(n=28). 28% of babies were admitted to PBU. Highest number of them were due to respiratory problems (n=10:35.7%) All achieved APGAR 10 at the 5th minutes of delivery. The majority of babies delivered by Cesarean sections have a gestational age of less than 38 weeks (n=24:80.0%). The majority of those who delivered in less than 2 hours are in the 38th week of gestation(n=20:52.6%). Participants with an intrapartum period greater than 6 hours were at 37-38 weeks gestational week. The majority of low-birth-weight babies were less than 38 weeks gestational age(n=20:83.3%). Post natal hospital stay was more than 5 days, most of them were participants with gestational age more than 38 weeks(n=22:78.5%). Almost half of PBU admissions are neonates delivered at 36-37 weeks(n=14:50.0%).

Majority of the mothers with 36-37 weeks of gestational age experienced normal vaginal deliveries (N=16,53.3%). Percentage of low birth weight among newborns was 26.6%(N=8). 46.6%(N=14) of the babies delivered within 36-37 weeks of gestational age were admitted to PBU. 13.3% of the neonates were unable to achieve the APGAR score of 10 within the first 5 minutes after birth.

Percentage of Lower Section Cesarean Section among mothers with 37-38 weeks of gestation was 25% (N=10). The percentage of low birth weight was 30 (N=12), and the percentage of PBU admissions was 15% (N=6). 25% of the study participants (N=10) were admitted and treated at the hospital for more than five days. 10% (N=2) of the neonates were unable to achieve APGAR score 10 within the first 5 minutes after birth.

16.6% of the mothers with a gestational age of 38-39 weeks delivered their babies via Lower Segment Cesarean Section. The percentage of low birth weight was 8.3% (N=2). A postnatal hospital stay for more than 5 days was observed among 33.3% (N=8) of the participants. The percentage of PBU admissions was 16.6% (N=4). All the neonates were able to achieve an APGAR score of 10 during the first 5 minutes of their life.

Among the PBU admissions, the majority were observed with respiratory system related symptoms(29.4% ;N=10). Maternal pathologies (17.6%), poor sucking (11.7%), Neonatal Jaundice (5.8%), sepsis (5.8%) and Fetal tachycardia (5.8%) were the noted indications for PBU admissions. None of the babies with more than 38 weeks of gestation were unable to achieve APGAR 10 within the first five minutes of their life.

It cannot be determined that a specific gestational age group is associated with perinatal complications. It seems that perinatal complications can be well managed by implementing well focused management strategies.

REFERENCES

1. Gouyon, J.., Vintéjoux, A.., Sagot, P.., Burguet, A.., Quantin, C.., & Ferdynus, C.. (2010). Neonatal outcome associated with singleton birth at 34-41 weeks of gestation.. *International journal of epidemiology* , 39 3 , 769-76 . http://doi.org/10.1093/ije/dyq037

2. Frederiksen, L. E.., Ernst, A.., Brix, N.., Lauridsen, L. L. Braskhøj., Roos, L.., Ramlau-Hansen, C.., & Ekelund, C.. (2018). Risk of Adverse Pregnancy Outcomes at Advanced Maternal Age.. *Obstetrics & Gynecology* . http://doi.org/10.1097/AOG.0000000000002504

3. Travers, C.., Clark, R.., Spitzer, A.., Das, A.., Garite, T.., & Carlo, W.. (2017). Exposure to any antenatal corticosteroids and outcomes in preterm infants by gestational age: prospective cohort study. *The BMJ* , 356 . http://doi.org/10.1136/bmj.j1039

4. Schimmel, M.., Bromiker, R.., Hammerman, C.., Chertman, Lila S.., Ioscovich, A.., Granovsky-Grisaru, S.., Samueloff, A.., & Elstein, D.. (2015). The effects of maternal age and parity on maternal and neonatal outcome. *Archives of Gynecology and Obstetrics* , 291 , 793-798 . http://doi.org/10.1007/s00404-014-3469-0

5. Kenny, L.., Lavender, T.., McNamee, R.., O'Neill, S.., Mills, T.., & Khashan, A.. (2013). Advanced Maternal Age and Adverse Pregnancy Outcome: Evidence from a Large Contemporary Cohort. *PLoS ONE* , 8 . http://doi.org/10.1371/journal.pone.0056583

6. Magnus, M.., Wilcox, A.., Morken, Nils-Halvdan., Weinberg, C.., & Håberg, S.. (2019). Role of maternal age and pregnancy history in risk of miscarriage: prospective register based study. *The BMJ* , 364 . http://doi.org/10.1136/bmj.l869