

CORRELATION OF GESTATIONAL AGE ASSESSED BY LMP, THIRD TRIMESTER ULTRASOUND AND BALLARD'S SCORE

Vijayalaxmi Gagandeep, Pradheep R R & Basavarajaiah D M

*Research Scholar, Department of Pediatrics, Bangalore Medical College and Research Institute,
Bangalore, Karnataka, India*

ABSTRACT

Background

An estimation of gestational age (GA) and fetal maturity (FM) is one of the cutting edge of the prenatal care. Since, in resource- poor country like India and South Asian countries, the periodic ultrasound is often not available. The clinical examination of newborn becomes very important and an attempt was made in the present study to correlate whether, third trimester ultrasound or 'LMP' is significantly better to determine the gestational age (GA) when compared with Ballard's score (BS). In many developing countries, ANC's won't remember their 'LMP' and not to perceive regular followup due to lack of literacy, poverty, low human development index (HDI), conception during lactation and hinders the estimation of gestational age etc. So for, inability of the patients to recall the date of last menstrual period.

Objective

The present study aims to compare the gestational age by NBS with LMP, Ultrasonography in third trimester.

Study Design

A prospective observational study (October 2017-March 2018) was conducted at Government tertiary care hospitals, which are attached to Bengaluru Medical College and Research Institute, Bengaluru.

Methods

A total 100 babies who are born to mothers remembering LMP with 3rd trimester USG were enrolled for the study group. During the study period new Ballard scoring was done for babies within 48hrs and Gestational age (GA), according to Ballard's score was compared with LMP age in 3rd trimester USG separately. The collected data was analyzed by using SAS-6.50 version. Univariate and multiple logistic regressions were employed to test the hypothetical results.

Results

The New Ballard score is found to be significantly correlated with GA ($p < 0.01$). The USG mean GA was 37 ± 2.10 weeks ($p = 0.000$) than LMP mean was 36 ± 2.0 weeks. Total 64.0 % of the childbirth is lead to normal vaginal delivery. This study shows that New Ballard score correlates more with gestational age (GA) according to USG ($r = 0.955, p < 0.01$), LMP was significantly correlated with GA and USG ($r = 0.953, p < 0.0001$) when all the age groups are included in the compilation. The analysis shows USG, LMP were found to be strongly correlated with GA ($P < 0.01$).

Conclusions

Single third trimester scan or LMP alone can be reliably used in assessing the gestational age, out of which third trimester scan is more reliable. When both parameters are available GA can be assessed more accurately and be confirmed with new Ballard's scoring.

KEYWORDS: *LMP, Ballard's Score, GA-Gestational Age, USG*

Article History

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