



## ▼ POST GRADUATES ABSTRACTS

### PG - 59 : CORRELATION OF SONOGRAPHIC MEASUREMENT OF TRANSCEREBELLAR DIAMETER AND FETAL FOOT LENGTH WITH BIOMETRIC PARAMETERS FOR THE ESTIMATION OF GESTATIONAL AGE IN PREGNANT WOMEN

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**Background:** An accurate estimation of fetal gestational age is the cornerstone for the management of all pregnancies, especially necessary for determining the fetal viability, involving obstetric interventions terminating pregnancies and assess and predict fetal outcome. The clinical estimation of gestational age (GA) typically depends on the clinical history followed

by confirmation by physical examination and signs and symptoms. Calculation of exact gestational age by LMP is very difficult in some situations. Ultrasound gave clinicians a method to estimate gestational age, growth and accuracy by measuring fetal biometry.<sup>(1)</sup> A variety of ultrasonographic biometric parameters are used to date pregnancy, each have their own limitations<sup>(2)</sup>. However,

non-biometric parameters such as Transcerebellar diameter (TCD) and Foot length (FtL) can be reliably used as surrogate parameters in those situations. **Aim:** To evaluate the accuracy of estimation of fetal gestational age by Ultrasound assessment of TCD and FtL.

**Material and methods:** This study is a hospital based prospective cohort study on 100 consecutive pregnant women with reliable dates between 18 and 36 weeks of gestation attending antenatal OPD in AarupadaiVeedu Medical College Pondicherry over the period of two year from February 2016 to July 2017 were recruited in the study. These women were subjected to trans-abdominal USG and measurement of TCD and FtL with BPD, HC, AC and FL was done.

**Results:** In our study, we found strong correlation of GA and TCD and FtL with  $r = 0.946$  and  $0.769$  respectively. TCD in mm from 19 to 30 weeks is equal to gestational age and FtL corresponds to gestational age in mm between 19 to 24 weeks.

**Conclusion:** Estimation of gestational age by TCD and FtL is a reliable and cost effective tool and significantly correlates with gestational age. TCD and FtL has a linear progression with advancing gestational. These are valuable tool that can be used as an independent parameter to assess fetal growth especially in cases of IUGR and unknown dates.