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ABSTRACT

Background: Fetal kidney length (FKL) can be used to estimate gestational age (GA) yet there is a paucity of data on its precision. Aim: To determine the precision and usefulness of FKL as GA predictor. Methods: In the prospective study, sonographically measured FKL was used to estimate GA while its standard error as GA estimator was calculated. Result: The rate of kidney growth was 1.2 mm per week; mean FKL was 37.7 ± 2.9 mm. The mean right and left FKL was 37.5 ± 3.6 mm and 37.9 ± 3.1 mm, respectively. Correlation between GA and FKL was positive (r = 0.9870; p < 0.0001); FKL was more precise than the biparietal diameter and abdominal circumference as GA estimator (standard error of estimation = ±6.6 days). Conclusion: Sonographically measured FKL was precise and useful as an independent GA estimator in the third trimester of pregnancy in a population of Yoruba women in Lagos Southwest Nigeria. Keywords: Sonography; gestational age estimation; fetal kidney length; precision.