

EDITORIAL

Fetal Biometry is a Prerequisite Part of Modern Antenatal Care

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Accurate gestational-age estimation, preferably by ultrasound measurement of fetal crown-rump length (CRL) before 14 weeks' gestation, is an important component of high-quality antenatal care.¹⁻³ Gestational age determination during the first trimester has a minimal deviation.

The most precise way to estimate gestational age is by measuring CRL between 8⁺⁰ and 14⁺⁰ weeks gestation. It is associated with a 95% prediction interval of 2.7 days.^{4,5} The impact of this finding is very significant in deciding whether the gestation is preterm or term. Unnecessary complications which occur in preterm babies could be avoided, and intensive care observation of the newborn will be minimised. Accurate dating of gestational age also supports us for the preparation of a fetus whenever has to be delivered due to unexpected condition e.g. premature preterm rupture of the amniotic membrane.

In case of fetal death, long bone measurements will inform us when the fetus died. It is crucial, especially in monochorionic diamniotic twins pregnancy. Twin to twin transfusion syndrome with one co-twin death has a high risk of complication to the living co-twin. It depends on when such a tragedy occurs.⁶ As we know, serious complications might influence the living co-twin.

Monitoring fetal growth and development longitudinally at second and third trimester as a follow up antenatal care is an essential integrated examination.^{7,8} Following the growth curve, any deviation will be identified. The deviation might be smaller or larger the normal curve. Tracing the growth curve of fetuses gives us a valuable information about its well-being. Any jeopardy of the fetuses can be detected, any interventions if needed can be planned thoroughly.⁹

The measurement of each organ of the fetus can be plotted to its gestational age normal distribution curve or compared to each gestational age Z score. Deviation from its normal distribution curve or Z score may be identified, e.g. short limb, microcephaly, ventriculomegaly.¹⁰ By collecting information from such fetuses, a differential diagnosis could be made, e.g. skeletal dysplasia, short limb syndrome. Measurements information will guide us to the specific diagnosis.

Thus, uniform and standardised measurement and protocol have to be created to achieve optimal results. Training and operator standardisation performance would be a success if right centre and trainer were available. Training and certification programs to achieve a favourable result performing fetal biometry is a prerequisite.^{11,12}

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