Comparison between the use of singleton curves and twin-specific curves for the identification of SGA foetuses in dichorionic twin pregnancies

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Objective. Twins growth trajectory in utero differs from singletons. However, there is currently no agreement on the use of twins-specific growth curves, and standards for singletons continue to be used for twins. We aimed to compare the incidence and accuracy of the diagnosis of SGA foetus using twins-specific growth standards compared to singleton standards in dichorionic (DC) twin pregnancies, and to compare perinatal outcomes.

Materials and Methods. A retrospective study was carried out on DC twin pregnancies that received care in a tertiary care hospital between 2017 and 2023. Estimated foetal weight centiles were calculated using twin-specific growth standards and singleton standards. Major foetal anomalies were excluded.

Results. Out of 453 DC twin pregnancies, using the twin specific growth standards, 28 foetuses (6.2%) were classified as SGA, compared to 76 foetuses (16.7%) using singleton standards ($p < 0.001$). Twin-specific curves were more specific (99% *vs* 92%) and had a greater PPV (96% *vs* 64%) for birth weight < 10th centile compared to the singleton standards. Among SGA foetuses diagnosed with the twin-specific standards, a significantly higher incidence of intrauterine foetal death (21.4% *vs* 6.5% $p = 0.03$), preterm birth < 34 weeks (42.8% *vs* 21.0% $p = 0.03$), low birth weight (1,100g ± 510 *vs* 1,730g ± 560 $p < 0.001$) and admission to NICU (82.1% *vs* 40.7% $p < 0.001$) was observed, compared to SGA diagnosed with singleton standards.

Conclusions. Twin-specific growth standards reduce the number of twins diagnosed as SGA, are more accurate in predicting low birth weight, and identify the SGA foetuses with greater incidence of adverse perinatal outcomes.