Small-for-gestational-age foetuses characteristics and outcome in pregnancies complicated by gestational diabetes

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Objective. The aim of the study was to define small-for-gestational-age (SGA) foetuses characteristics in pregnancies complicated by gestational diabetes (GDM) and to evaluate the possible underlying haemodynamic changes.

Materials and Methods. We enrolled 112 women with singleton pregnancies complicated by SGA foetuses, 30 of them had GDM while 82 did not. Maternal height and weight were considered at the admission time while haemodynamic assessment with USCOM was performed in both groups in the third trimester before delivery. To assess foetal outcomes, we considered the STv of CTG performed in admission and Foetal Birth Weight.

Results. GDM group had an higher BMI (29.3 ± 6.2 *vs* 25.9 ± 3.9; p = 0.0008), lower STv (7.5 ± 2.9 *vs* 9.4 ± 2.7; p = 0.003) and a lower Foetal Birth weight (2,105 ± 514.2 *vs* 2,350 ± 534.2; p = 0.03) with a higher proportion of PFS < 5° pc (80% *vs* 59.7%; p = 0.05) despite of the non-diabetic group. In pregnancies complicated by GDM there were twice as many cases of hypertension and double the use of nitroderivative therapy. Haemodynamics features were similar in the two groups.

Conclusions. SGA foetuses of diabetic women have a worse outcome risk by presenting at delivery with lower foetal weight and STv both of which data would seem to suggest that in pregnancies with GDM, SGA foetuses have a higher degree of severity than in pregnancies not complicated by GDM.