



Flexible management according to ultrasound fetal growth versus strict maternal glycemic treatment of gestational diabetes mellitus patients: A meta-analysis of randomized clinical trials

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OBJECTIVE

To evaluate obstetric outcomes in gestational diabetes mellitus (GDM) patients treated according to flexible management based on intrauterine ultrasound fetal growth (FMIUFG) or strict maternal glycemic adjustment (SMGA).

MATERIALS & METHODS

We performed a comprehensive systematic review of electronic databases for randomized controlled trials (RCTs) comparing obstetrics outcomes of singleton GDM patients managed according to FMIUFG or SMGA. Random-effect model meta-analyses were used to minimize the effects of uncertainty associated with inter-study variability. Results are reported as standardized mean differences (SMDs) or as odds ratios (ORs) and their 95% confidence interval (CI).

The Cochrane Risk of Bias Scale was used to evaluate quality of studies.

RESULTS

There were five RCTs with low to moderate risk of bias

- 450 patients managed according to the FMIUFG
- 381 according to the SMGA

There were no significant difference in

- Gestational age at delivery, SMD: -0.03 [95%CI: -0.17 to 0.11]
- Birthweight, SMD: -0.11 [95%CI: -0.30 to 0.07]
- Newborn large for gestational age, OR: 0.65 [95%CI: 0.33 - 1.28]

The birthweight higher than 4000 grams rate was lower in pregnancies managed according to FMIUFG than to SMGA adjustments, OR: 0.34 [95%CI: 0.16 - 0.71]

- There were no significant differences in hypertensive disorder, cesarean section, neonatal intensive care unit admission, and large newborn for gestational age rates.

CONCLUSION

The risk of birthweight > 4000 grams was lower in women managed with the FMIUFG. There were not significant differences in other obstetrics and neonate outcomes between the two clinical management approaches.