RESPONSE TO COMMENT ON NACHUM ET AL.

Glyburide Versus Metformin and Their Combination for the Treatment of Gestational Diabetes Mellitus: A Randomized Controlled Study. Diabetes Care 2017;40:332–337

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The comment by Barbour and Davies (1) acknowledges that our study (2) is important given the increasing popularity of oral agents to treat gestational diabetes mellitus (GDM) but raises concerns whether the study design and conclusions can be generalized to other GDM populations.

With regard to treatment efficacy before 24 weeks, in our study the success rate of oral treatments before and after 24 weeks was similar: 67% vs. 69% after first-line therapy and 89% vs. 90% for second-line therapy, respectively. Our study (2) excluded the more severe patients suffering from impaired glucose tolerance by not including patients with a first trimester GDM diagnosis or those with first trimester fasting glucose ≥105 mg/dL, while the series mentioned by Barbour and Davies (1) included such patients (3). The study by Sweeting et al. (4) found an increased risk for insulin treatment in GDM before 24 weeks, but oral treatment was not studied.

With regard to glyburide given at bedtime to treat fasting hyperglycemia, only six patients in our study suffered from hypoglycemia without predisposition to nocturnal hypoglycemia. These results are consistent with the study by Yogev et al. (5) using continuous glucose monitoring in glyburide-treated patients, which showed that hypoglycemic episodes were identified equally by day and night.

We agree that glyburide was successful in achieving glycemic control when metformin failed, and when glyburide failed, adding metformin less often achieved control. However, since both glyburide and metformin used as a first-line treatment had similar failure rates with respect to poor glycemic control (23% versus 28%, respectively), it might be better to start with metformin. We speculate that since metformin increases insulin sensitivity, it might potentiate the effect of glyburide when the latter is added.

Finally, we agree that a study to compare the safety and efficacy of the combination of metformin and glyburide to insulin should be conducted, and that long-term risks of glyburide and metformin are not known and should be explored in future studies. Nevertheless, the data that are available support the use of oral hypoglycemic agents to treat GDM thanks to their short-term efficacy, safety, patients' compliance and satisfaction, and low cost.

Duality of Interest. No potential conflicts of interest relevant to this article were reported.

References

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